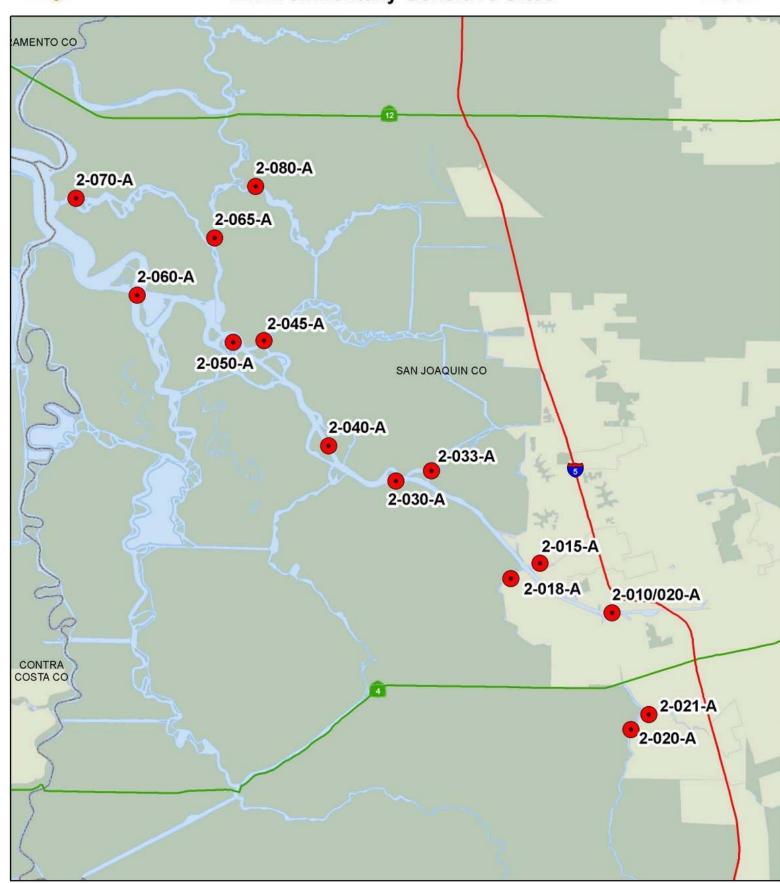


# SF Geographic Response Area 10 - East Delta Port of Stockton - San Joaquin River & Ship Channel Environmentally Sensitive Sites





# Section 9850 - GRA 10 East Delta

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**GRA 10 Site Index/Response Actions** 

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Site ID	Priority	Site Description	Assignment	Date/Time	Date/Time
				Required	Completed
2-10		San Joaquin River, Port of Stockton			
2-15		Calaveras River Mouth at San Joaquin River			
2-18		Burns Cutoff at Rough and Ready Island			
2-20		San Joaquin River, Stockton to Lathrop Reach			
2-21		French Camp Slough			
2-30		San Joaquin River, Roberts Island Reach			
2-33		Fourteenmile Slough			
2-40		San Joaquin R: Hog Island Cut Complex			
2-45		Disappointment Slough			
2-50		San Joaquin River, Ward Cut Islands			
		Complex			
2-60		San Joaquin River, Mandeville/ Venice Tips			
		Complex			
2-65		Little Potato Slough			
2-70		Potato Slough			
2-80		Whites Slough			
	l	I	1	l .	L

# Summary of GRA 10 East Delta Response Resources by Site and Sub-Strategy

Site	Site Name	
sub- strategy	PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT	
	or Swamp Other Sorbant Anchoring Boom Skiff Skimmer Special Equipment (and notes) d	leploy Staff to
Boom	boom boom/TYPE boom No type of gear boat No Type No and kinds	staff tend
<u>2-010</u>	San Joaquin River, Port of Stockton	
.1	Exclusion/Containment/Collection booming at Port mouth	
2000	50 OS 2100 6 6/25/DANFORTH 1 1 Good land deployment options  Exclusion/Collection/Containment boom at San Joaquin River mouth at Port junction. See San Joaquin R, Stocl	ton to Lat
0		4
.3 -	Oil Recovery with shoreside skimming	
0	0 0 0 0 0 0 0 2 SSS 0	
<u>2-015</u>	Calaveras River Mouth at San Joaquin River	
.1 -	Exclude/Contain boom at the Calaveras River mouth on San Joaquin R.	
2 019		2
<u>2-018</u>	Burns Cutoff at Rough and Ready Island  Exclude/Contain boom at San Joaquin River (upstream) east end.	
		2
.2 -	Exclude/Contain boom at mouth on Deep Water Channel (downstream/east end)	_
0		0
2-020	San Joaquin River, Stockton to Lathrop Reach	
.1 -	Divert/Exclude/Contain/Collect boom at mouth of San Joaquin at Stockton Harbor entrance(SAME AS 2-010.2 St	tockton Ha
0		
.2 -	diversion to shore collection and protective boom for marshy/riparian exposures.  400 50 OS 700 4 4/15 lb/danforth 0 1	
.3 -	Oil Recovery by skimming	4
0		
2-021	French Camp Slough	
.1 -	Exclusion/Containment booming at mouth to prevent entering or leaving the slough mouth: Stop oil entry on inc	coming tid
0		2
.2 -	deflection to collection away from slough to opposite side of San Joaquin River when oil is coming down-river	from upstr
3 -	300 50 OS 300 2 2/25/DANFORTH 0 1  Oil Recovery by skimming	2
.5 -		
2-030	San Joaquin River, Roberts Island Reach	
.1 -	Diversion/Collection/exclusion/containment boom to halt oil movement in Stockton Channel	
1200	50 OS 100 6 6/25lb/danforth 1 1	9
.2 -	Exclusion/protection booming of openings and marshy margins Walters Island to keeping oil from backside characteristics.	
2000 - <b>3</b> -	3000 9 9/25/DANFORTH 2 1  Oil Recovery by skimming	9
.3 -	0 0 0 0 0 0 1 SSS 0	
2-033	Fourteenmile Slough	
.1 -	Exclusion/containment boom of mouth at each end of Morrison Island (at lights G33 & G31)	
1100		6
.2 -	Protection boom and sorbants of emergent vegetation on Morrison Island.	
0		2
<u>2-040</u>	San Joaquin River, Hog Island Cut Complex	
.1 -	NORTH SIDE: Exclude oil from backside of north Hog Island setting boom at each end of backside channel.	
3000	3000 10 10/25/ & 5/15/DANFORTH possible land skimming  SOUTH: Exclude oil from 21 Mile Slough (south margin of Spud Island) by booming each end.	4
1600		4
.3 -	WEST: Exclude/Divert/Collect boom, divert oil to levee bank for collection as wind and currents permit.	
2000	50 OS 100 12 14/40lbs/danforths 3 0	9
.4 -	Oil Recovery by skimming	
0		
<u>2-045</u>	Disappointment Slough	
.1 -	Exclude/Contain booming the slough mouth near the Ship Channel) at west end  1500 5 2/25 & 3/15/DANFORTH	
1300	Exclude/Contain booming at Honker Cut and Bishop Cut.	
0		2
2-050	San Joaquin River, Ward Cut Islands Complex	
.1 -	EAST End: Exclude/Divert/Collect boom ( at light R16) and divert oil to shore for collection.	
1600	50 OS 2100 5 2/25/, 1/50/ & 2/15/DANFORT 2 1	8

Sit	e	Site Name	
sub- strat	tegy	PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT	
		r Swamp Other Sorbant Anchoring Boom Skiff Skimmer Special Equipment (and notes) boom boom/TYPE boom No type of gear boat No Type No and kinds	deploy Staff t
2	-	WEST END: Exclude/Divert/Collect boom. Wind waves are typically a problem here.	
	1200	1200 5 4/25/ & 1/50/danforth 2 1	8
3	-	Sorbent and exclusion boom included islands as necessary.	
	0	4000 4000 14 14/15lbs/danforths. 0 2	4
4	-	Oil Recovery by skimming	
	0	0 0 0 0 0 0 1 SSS 0	
2-0	060	San Joaquin River, Mandeville/Venice Tips Complex	
1	-	WEST END: Exclude/Divert/Collect booming (at R58)	
	2000	2000 8 8/25/danforth 3 1 3/1	8
2	-	Exclude oil from main marsh exposure to channel and smaller channel openings from ship channel and ri	ver.
	0	8000 8000 14 14/15lbs/danforths 3 1 3/1	8
3	-	EAST END: Exclude/Contain boom (ar R6), excute Ward Cut and Middle River Strategies	
	0		
2-0	065	Little Potato Slough	
1	-	SOUTH END: Exclusion/Containmet at the Slough mouth (near Ship Channel); Site subject to strong wind	currents.
	1000	1000 4 4/25/DANFORTH	2
2	-	NORTH END: Exclusion/Containment of Slough at South Mokelumne River junction.	
	0	300 300 2 2/25lb/danforth 0 1 possible skim	2
3	-	Exclusion (at Ship Channel) of LITTLE VENICE ISLAND and side Sloughs.	
	0	3500 10 10/15lbs/danforth 0 1	2
2-0	70	Potato Slough	
1	-	Exclude/Contain boom at east Slough mouth on Little Potato Slough.	
	0	400 400 4 4/15/DANFORTH 0 1	2
. 2	-	Exclude/Contain boom mouth at San Joaquin River.	
	1200	2 2/40lb/danforth 2 1	8
2-0	080	White's Slough	
1	-	Exclude/Contain boom at the junction with Little Potato Slough on each side of Devil's Isle.	
	0	400 400 4 4/15/DANFORTH 0 1	
2	-	Exclude/contain booming at Honker Cut.	
	0	200 2 2/15lb/danforth 0 1	2
. 3	-	Exclude/contain booming at Bishop Cut.	
	0	200 2 2/15lbs/danforth 0 1	

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2-010 -A

**Thomas Guide Location** Latitude N Longitude W 37 57.2 County: 121 20 San Joaquin SF Bay and Delt USGS Quad:

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/2005

#### SITE DESCRIPTION:

**Stockton West** 

Site is from intersection of San Joaquin River and Deep Water Channel at the Port of Stockton (R 48) to terminus of harbor east of I-5. This deepwater port is heavily developed with commercial wharves and facilities. The margins are either heavily ripped or have seawalls and piers. Some mature trees line the edges. This is an area with high likelihood of originating spills.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Special Status Species occur here: modest numbers of Delta smelt (F/CT) are here during Nov and Dec; Swainson's hawk and burrowing owl nest and forage in this vicinity.

#### RESOURCES OF PRIMARY CONCERN

Aquatic environment supports freshwater community. Low dissolved oxygen can stress this community in late summer. Shoreside life that can utilize extremely disturbed areas.

Swainson's hawk (FSC/CT) and burrowing owl (CSC) nest and forage north of and along the harbor.

During fall/winter modest numbers of Delta smelt occur. Juvenile and adult striped bass are typical as are warm water species.

Freshwater invertebrates are those typical of low salinity delta waters.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

# KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone	
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464	
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166	
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528	
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190	
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883	

#### Site Strategy - San Joaquin River, Port of Stockton 2-010 -A

2-010 -A County and Thomas Guide Location Longitude W

SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

37 57.2 121 20

**CONCERNS and ADVICE to RESPONDERS:** 

7/1/2005 Last Page Update:

This site has a relatively high probability of occurring due to proximity of tank farms, vessels, and industrial petroleum supplies. Although there are ecological concerns here, the objective is to confine oil to this site and prevent it from moving to other sites, particularly to upstream. Oil issues within the site are penetration into riprap, oiling of pilings and collection behind seawalls and under wharves.

#### **HAZARDS and RESTRICTIONS:**

Beware of ship traffic and wharf equipment operations. Waters are deep draft except in SJ River. Aerial traffic beware of power wires. Note pipeline crossings under SJR just upstream from Harbor.

#### SITE STRATEGIES

#### Strategy 2-010.1 Objective: Exclusion/Containment/Collection booming at Port mouth

- a. Set 1300' 9x9+ Hboom across Port mouth at a diagonal. Anchor/attach one boom end to wharf #9 seawall and angle across channel to fend oil to North shore. Leave a trailing boom length to maintain seal during tidal changes. Wind wash can be a problem here. Use 50ft Oil Snare (OS), 100ft sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.
- b. Close off passages under south side wharf. Oil can travel through the open spaces under Wharf #9. Lay boom under east end of Wharf #9 and also across openings at west end. Leave trailing ends to keep seal during tidal flux.

Strategy 2-010.2 Objective: Exclusion/Collection/Containment boom at San Joaquin River mouth at Port junction. See San Joaquin R, Stockton to Lathrop Reach.

If needed, deploy 2-020 San Joaquin River, Stockton to Lathrop Reach: Set 4X4+ boom from dolphin southwest of Wharf #9 diagonally across river mouth to channel side of Rough and Ready Island. Anchor to keep a long diagonal downstream. Skim oil in San Joaquin from eddy at tip of Rough & Ready Island and oil from harbor from east side land sites near dolphin.

Strategy 2-010.3 Objective: Oil Recovery with shoreside skimming

Deploy skimmers when oil accumulates in skimmable quantities. Skim at north bank attachment (strategy .1, phase A). Consult with IC prior to the initiation of this strategy.

Table of Response Resources

IUDIO	01 110	OPOLIC	o itoood	1000											
strategy	harbor	swamp	Other	sorb	-	Anchoring	Boom	Skiffs	Skim	mers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-010.1	2000		50 OS	2100	6	6/25/DANFORTH	1	1				Good la	and deployment options	5	
2-010.2	0	1500		1000	4	4/15 lb/danforth	0	1						4	
2-010.3	0	0	0	0	0		0	0	288	S	0				

#### LOGISTICS

# DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is by boat from marinas within and just downstream from Stockton Harbor. Levee road to north and wharves on south side are accessible via surface streets off of I-5 exits north and south of harbor. Site is from intersection of San Joaquin River and Deep Water Channel at the Port of Stockton (R 48) to terminus of harbor east of I-5.

PAVED LEVEE ROADS LAND ACCESS:

WATER LOGISTICS: deep draft, shallower in SJR

Limitations: depth, obstruction

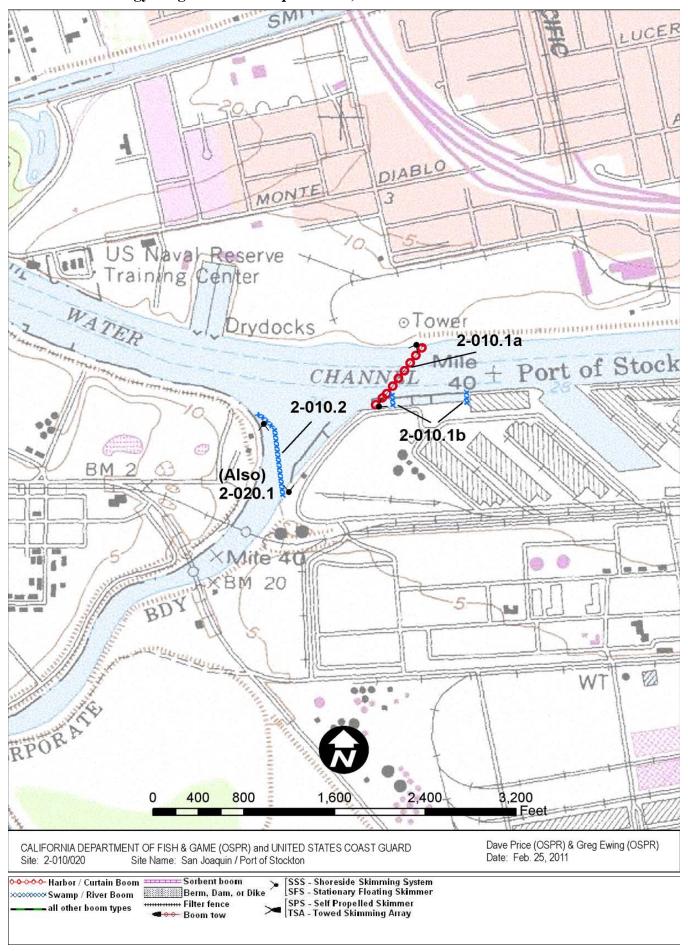
Launching, Loading, Docking Stockton harbor area marina facilities.

and Services Available:

#### FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

South wharves (or north levee road) is a ready deployment site with good access. Otherwise transport material by skiff.

**COMMUNICATIONS PROBLEMS:** none known



#### 2-015 -A Site Summary- Calaveras River Mouth at San Joaquin River

2-015 -A

**Thomas Guide Location** Latitude N Longitude W 3 7 58 121 22 County: San Joaquin SF Bay and Delt USGS Quad: **Stockton West** 

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

Site extends from mouth on Stockton Deep Water Channel (at G 41opposite Burns Cutoff river mouth), about 3 miles up river to I-5 overpass. Though urbanized, this is a biologically rich and diverse site. This seasonal river is wide and deep at mouth but narrows and shallows rapidly upstream, with margin varying from heavily ripped, revegetated levees to backyard piers to pockets of emergent marsh vegetation, berm islands and mature trees. Snags and shallows are common in this medium energy environment.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species: During Nov-Dec modest numbers of Delta smelt(F/CT); winter-run chinook (F/CE) are a modest concern from mid Oct- May; Swainson's hawk (FSC/CT) and burrowing owl (CSC) are on uplands upstream from mouth all year. One rare plant.

#### RESOURCES OF PRIMARY CONCERN

Vulnerable marshy margins and islands and riparian growths. Diversified aquatic community including T/E species and migrant fish. Oil film could aggravate low dissolved oxygen condition typical of this area in summer months and threaten this aquatic community.

Two Special Status Species occur: Swainson's hawk (FSC/CT) and burrowing owl (CSC) nest and forage along river. Other typical marshy and riparian species: waterbirds and marsh birds.

Other fauna include species using mixed vegetation type such as riverine and semiaquatic species. Habitat may be suitable for western pond turtle.

In fall/winter this area has a modest occurrence of Delta smelt. There is a small salmon run in Calaveras. Juvenile and adult striped bass are typical as are warm water species.

Abundant emergent and rooted vegetation is present here.

The rare plant, California Hibiscus, occurs here.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

# KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
E	Lex Corrales	Sargent-Barnhart	(209) 473-6155
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883
В	Dale Sweetnam	CA Dept. of Fish & Game, Bay/Delta	(858) 546-7170

#### Site Strategy - Calaveras River Mouth at San Joaquin River 2-015 -A

2-015 -A NOAA CHART Latitude N Longitude W

County and Thomas Guide Location SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

3 7 58 121 22

**CONCERNS and ADVICE to RESPONDERS:** 

Last Page Update:

Concern is to close river mouth to exclude oil from entering the river and affecting upstream areas, or, if oil originates up river, keep it confined and prevent it from oiling other sites. Penetration into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands. Emergent and marsh vegetation cleaning issues.

#### **HAZARDS and RESTRICTIONS:**

Aerial traffic beware of high wires. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak, Slips &

#### SITE STRATEGIES

Strategy 2-015.1 Objective: Exclude/Contain boom at the Calaveras River mouth on San Joaquin R.

Set boom across River mouth. Anchor one boom end near downstream riprap bank. Anchor upstream boom end upriver (SJR) near docks, leaving a trailing boom length to maintain seal during tidal vacillations. Skim riprap closure if spill is in river. Back with sorbent. Wind wash can be a problem here. Possible Shore Side Skimmer collection site.

Table of Response Resources

strategy	harbor	swamp	Other	sorb	Α	nchoring	Boom	Skiffs	Skin	nmers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-015.1	500			500	4	4/25/DANFORTH	0	1						2	

## LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is by boat accessible from Stockton Deep Water Channel at marker G 41. Levee road are accessible on east and west from surface streets off of I-5. (March Ln exit, south to Brookside to levee access.) Site extends from mouth on Stockton Deep Water Channel (at G 41opposite Burns Cutoff river mouth), about 3 miles up river to I-5 overpass.

PAVED LEVEE ROADS LAND ACCESS:

WATER LOGISTICS:

Limitations: depth, obstruction

Shallow and shallower, snags

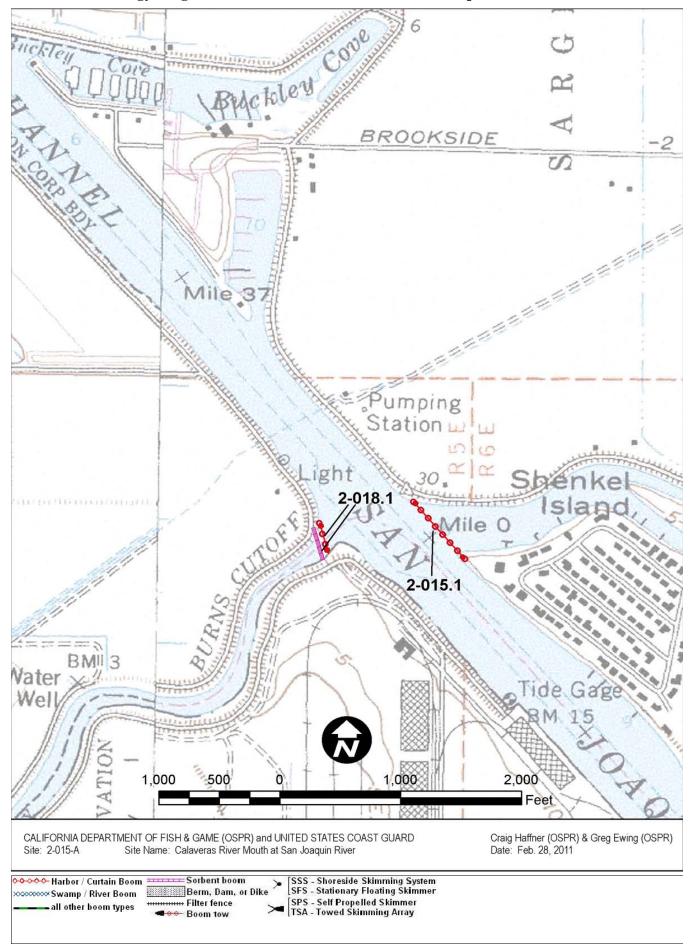
and Services Available:

Launching, Loading, Docking Boat launch, fuel, and other marina facilities are available at Stockton Port and other marinas up and down channel.

### FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Northwest levee road is a ready deployment site with good access. South levee area may work well too after gaining cooperation of homeowners. Otherwise transport material by skiff. Support facilities are widely available in Stockton area. There is a nearby waterfront park.

**COMMUNICATIONS PROBLEMS:** none known



#### 2-018 -A Site Summary- Burns Cutoff at Rough and Ready Island

2-018 -A

Last Page Update: 7/1/1996

**Thomas Guide Location** Latitude N Longitude W 37 58.1 County: 121 22 San Joaquin SF Bay and Delt USGS Quad:

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

#### SITE DESCRIPTION:

From mouth on Stockton Deep Water Channel (at R 42 opposite Calaveras River mouth), about 3 miles to mouth on San Joaquin River about 1 mile south of Port of Stockton. It is bordered by Rough & Ready Island on its NE shoreline. A fairly narrow, shallow water slough with margin varying from heavily ripped, revegetated levees to emergent marsh vegetation and mature trees. Snags and shallows are common this medium energy slough. Several small marshes have developed in the slow bends of the slough in the westerly half.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Marsh and riparian vegetation zones are of "A" concern year-round. In Nov-Dec delta smelt are present in modest numbers. Winter-run chinook are of modest concern mid Oct - May.

#### **RESOURCES OF PRIMARY CONCERN**

Stockton West, Holt

Although riparian edge is heavily disturbed due to riprap, there are some significant marshy-riparian remnants, particularly in the westerly half. Aquatic community is typical for delta. This channel is used by sensitive and migrating fish species.

Bird life is riverine species including waterbirds and marsh birds.

Other vertebrates are riverine and semiaguatic species which use marshy or riparian patches. Habitat may be suitable for western pond turtle.

During Nov-Dec Delta smelt (F/CT) are present in modest numbers. Salmon smolts pass through this channel. Winter run chinook smolts are of low to modest concern mid Oct - May. Juvenile and adult striped bass and warm water fish are typical.

Some sizable emergent vegetation marsh areas in westerly half.

Rare plants have not been found here except for a historic record of Delta tule pea on Rough & Ready Island.

#### **CULTURAL. HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

#### KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Dominick Gulli	Terminous Tract Reclamation District	(209) 465-5883
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

#### Site Strategy - Burns Cutoff at Rough and Ready Island 2-018 -A

2-018 -A NOAA CHART

County and Thomas Guide Location SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

Longitude W 37 58.1 121 22

October 1, 2011

Last Page Update:

#### **CONCERNS and ADVICE to RESPONDERS:**

Concern is to exclude oil from entering this channel and contaminating additional habitat. Within the site the concerns are penetration into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands.

Aerial traffic beware of power wires. Regarding boat handling, beware of underground pipe crossing, shallows, snags and mud bars. Slips, trips and falls.

#### SITE STRATEGIES

Strategy 2-018.1 Objective: Exclude/Contain boom at San Joaquin River (upstream) east end.

Set boom across slough mouth. Anchor one boom end near downstream riprap bank. Anchor upstream boom end upriver (SJR) past forested tip and to shore across mud shallows, leaving a trailing boom length to maintain seal during tidal vacillations. If spill is in slough, skim at riprap closure. Back with sorbent. Land-based deployment.

Strategy 2-018.2 Objective: Exclude/Contain boom at mouth on Deep Water Channel (downstream/east end)

Anchor boom across from just inside of mouth on Rough and Ready across to opposite shore (Roberts Island). Leave trailing boom ends to promote sealing during tidal flux. Back with sorbent boom. Skimming collection on west side.

**Table of Response Resources** 

strategy	harbor	swamp	Other	sorb	1	Anchoring	Boom	Skiffs	Skim	nmers	,	Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-018.1	0	200		200	2	2/15/DANFORTH	0	1						2	
2-018.2	0	100		100	2	2/15/ DANFORTH			0/1					0	

#### **LOGISTICS**

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is from southerly side via I-5 to Hwy 4 to Private levee roads (from Hwy 4 and Roberts Island Road. Also access via Navy property (USN ROUGH & READY ISL). I-5 to Charter Way to Rough & Ready Naval Station (Rough & Ready Island access only by approval of USN). By boat accessible from SJ Deep Water Channel to south from marker R42 or from S J R end 1 mile S of Port. From mouth on Stockton Deep Water Channel (at R 42 opposite Calaveras River mouth), about 3 miles to mouth on San Joaquin River about 1 mile south of Port of Stockton. It is bordered by Rough & Ready Island on its NE shoreline.

LEVEE ROADS GOOD EXCEPT WHEN WET LAND ACCESS:

**WATER LOGISTICS:** SHALLOWS AND SNAGS

Limitations: depth, obstruction

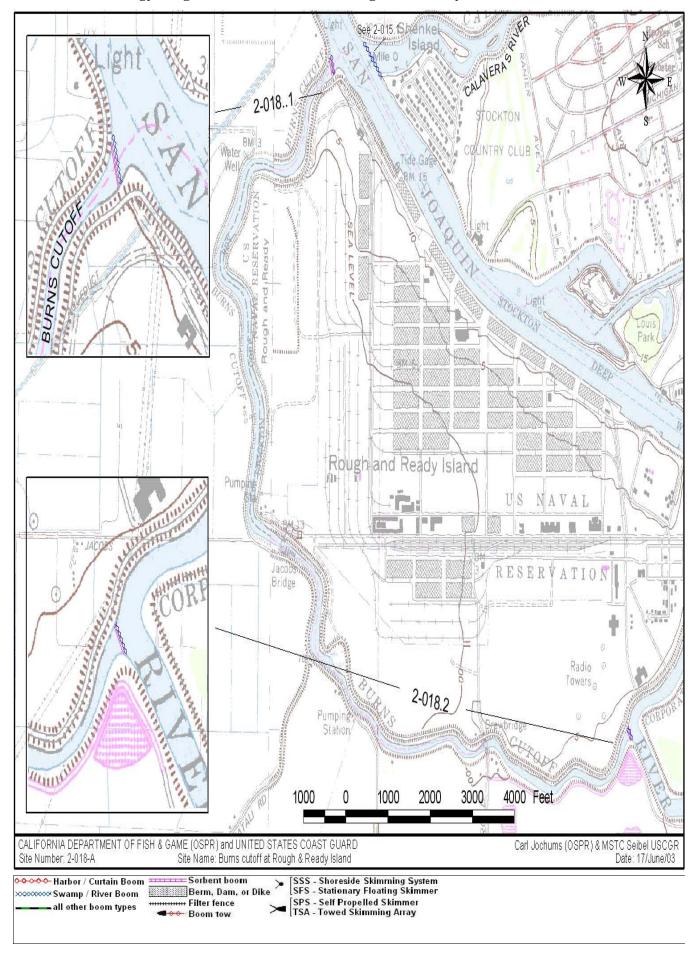
Launching, Loading, Docking Stockton harbor area marina facilities have all services.

and Services Available:

#### FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

With Navy approval Rough and Ready Island is a secure deployment site. Adjacent levees should be adequate as long as roads are passable. Otherwise transport material by skiff.

**COMMUNICATIONS PROBLEMS:** none known



#### 2-020 -A Site Summary- San Joaquin River, Stockton to Lathrop Reach

2-020 -A

**Thomas Guide Location** Latitude N Longitude W 3 7 57 121 20 2 County: San Joaquin SF Bay and Delt USGS Quad: **Stockton West** 

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

Site is from intersection of San Joaquin River and Deep Water Channel at the Port of Stockton (R 48) up river to south 17 miles to I-5 at Mossdale. This channel is relatively narrow and occasionally winding. It is bordered with heavily ripped levees, but there are occasional pockets, some quite sizable, of natural mature riparian vegetation and occasional marshes. The water supports warmwater species, and the smolts from three salmon runs migrate through this reach.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Marsh and riparian areas found here are "A" priority at all times. Several Special Status Species are found here: Swainson's Hawk (FSC/CT) and tri-colored blackbirds (F/CSC); one rare plant.

#### **RESOURCES OF PRIMARY CONCERN**

Pockets of remnant riparian forest and marsh, some quite sizeable, remain scattered along this ripped reach. Aquatic environment supports freshwater community and is a migratory route for several salmon runs. Low dissolved oxygen can stress this community in late summer.

Special Status bird Species here are Swainson's hawk (FSC/CT) and tri-colored blackbirds (F/CSC) that nest and forage along this reach as do many other waterbirds and riparian species.

Other vertebrates include riparian and semiaquatic species such as deer, fox, raccoon, mink, muskrat, beaver, snakes, lizards, amphibians, etc. This may be habitat for western pond turtle.

This area has typical warmwater aquatic community. The remaining salmon runs of the San Joaquin Valley migrate San Joaquin salmonid stocks migrate through this reach; smolt survival in this area is key to those fish stocks.

One rare plant occurs here: Slough thistle (F/CSC). Key vegetation here are mature riparian pockets and small marshy areas.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

#### KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Dominick Gulli	Terminous Tract Reclamation District	(209) 465-5883
OEL	Mary Hildebrand	South Delta Water Agency	(209) 403-4082
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

# 2-020 -A Site Strategy - San Joaquin River, Stockton to Lathrop Reach

County and Thomas Guide Location

NOAA CHART

2-020 -A

Latitude N Longitude W

Last Page Update:

7/1/2005

SF Bay and Delt San Joaquin 18661 SACRAMENTO / SAN JOAQUIN RIVER 3 7 57 121 20.2

#### **CONCERNS and ADVICE to RESPONDERS:**

Prime concern is to prevent oil from entering the river from the ship channel. Once oil is in this long river reach, there is concern for toxicity to fish in the river and oiling of shrub and marsh growths and, secondarily, oil getting into riprap and animal burrows. If oil originates in the reach, try to confine it to the main channel and collect it with shore side collection and skimming.

#### **HAZARDS and RESTRICTIONS:**

Beware of ship traffic and wharf equipment operations at mouth. Aerial traffic beware of power wires. Note pipeline crossings under SJR just upstream from Harbor. River has many shallows, snags and pilings.

#### SITE STRATEGIES

Strategy 2-020.1 Objective: Divert/Exclude/Contain/Collect boom at mouth of San Joaquin at Stockton Harbor entrance(SAME AS 2-010.2 Stockton Harbor).

Set 4X4+ boom from dolphin southwest of Wharf 9 diagonally across river mouth to channel side of Rough and Ready Island. Anchor to keep a long diagonal downstream. Collect oil in San Joaquin from eddy at tip of Rough and Ready Island and oil from harbor from east side land sites near dolphin. (This is the same as 2-010.2 Stockton Harbor.). Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-020.2 Objective: diversion to shore collection and protective boom for marshy/riparian exposures.

As opportunity permits, set 4X4+ boom across river at a diagonal to drive oil to shore for collection. Protect marsh and emergent vegetation with sorbent boom as necessary. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-020.3 Objective: Oil Recovery by skimming

Deploy skimmers when oil accumulates in skimmable quantities. Consult with IC prior to the initiation of this strategy.

**Table of Response Resources** 

strategy	harbor	swamp	Other	sorb	Anchoring	Boom	Skiffs	Skimme	ers	Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no type and gear	boat	punts	No Ty	pe No	and	kinds	deploy	tend
2-020.1	0	0	0			0							
2-020.2	0	400	50 OS	700	4 4/15 lb/danforth	0	1					4	
2-020.3	0	0	0	0	0	0	0	2SSS	0				

#### **LOGISTICS**

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is by boat accessible from marinas within and just downstream from Stockton Harbor. Levee and wharves at mouth are accessible via surface streets off of I-5 exits north and south of harbor. Along the remainder of the site are levee roads accessible from Roberts Island via Hwy 4. Site is from intersection of San Joaquin River and Deep Water Channel at the Port of Stockton (R 48) up river to south 17 miles to I-5 at Mossdale.

LAND ACCESS: PAVED AND UNPAVED LEVEE ROADS

WATER LOGISTICS:

SHALLOWER IN SJR

Limitations: depth, obstruction

Launching, Loading, Docking Stockton harbor area marina facilities.

and Services Available:

#### FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

South wharves (or north levee road) is a ready deployment site with good access at mouth. Otherwise few facilities once you leave the Port area: unload from levee and/or transport material by skiff.

COMMUNICATIONS PROBLEMS: none known

CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD Site: 2-010/020 Site Name: San Joaquin / Port of Stockton

Dave Price (OSPR) & Greg Ewing (OSPR) Date: Feb. 25, 2011

Sorbent boom

So

2-021 -A

**Thomas Guide Location** Latitude N Longitude W 3 7 55 County: SF Bay and Delt 121 19.2 San Joaquin USGS Quad: **Stockton West** 

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

A six mile+ dead-end slough extending from the mouth on the San Joaquin River easterly with main stem and branch, Walker Slough, to I-5 (ACP boundary). Both branches extend well east of I-5. This local is a Delta Master Recreational Plan designated Natural Resource Area with Significant Habitat Values. Habitat varies from lightly ripped, revegetated levees to pockets of mature riparian growth and occasional berm islands. Snags, marshy/riparian margins and shallows are common in this low energy slough. It has a 2 mile branch, Walker Slough. Only about 3 of the 6+ slough miles are west of I-5.

#### SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh/riparian vegetation zones are of "A" concern year-round. Special Status Species: modest numbers of Delta smelt in winter. Modest concern for downstream migrant winter-run chinook from mid October through 31 May. Birds: Swainson's Hawk.

### **RESOURCES OF PRIMARY CONCERN**

Primary habitat at risk is marsh-riparian at this biologically rich site. Habitat varies from light riprap to mature riparian forest. Aquatic habitat is typical warm water community.

Swainson's hawk (FSC/CT) nests here. Other species present typical riverine/riparian habitat: waterbirds. marsh and shorebirds, canopy and edge bird life, shoreline foragers and aquatic life.

High quality vegetation mix is used by deer, raccoons, muskrat, mink and other mustellids, fox and coyote, rodents and reptiles and other riverine/riparian species. Habitat may be suitable for western pond turtle.

Modest numbers of Delta smelt during winter season and downstream migrant salmon. Juvenile and adult striped bass are typical as are warm water species.

Freshwater invertebrates typical of fresher delta waters.

Emergent and rooted aquatic, marsh and riparian vegetation throughout.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

#### KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone	
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464	
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166	
E	Dominick Gulli	Terminous Tract Reclamation District	(209) 465-5883	
OEL	Mary Hildebrand	South Delta Water Agency	(209) 403-4082	
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528	
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190	

# 2-021 -A Site Strategy - French Camp Slough

County and Thomas Guide Location NOAA CHART Latitude N Longitude W

SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

3 7 55 121 19.2

Last Page Update:

2-021 -A

7/1/2005

**CONCERNS and ADVICE to RESPONDERS:** 

Penetration into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands. Vegetation cleaning problems.

#### **HAZARDS and RESTRICTIONS:**

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

#### SITE STRATEGIES

Strategy 2-021.1 Objective: Exclusion/Containment booming at mouth to prevent entering or leaving the slough mouth: Stop oil entry on incoming tide or oil escapement if originating within slough.

Set boom across slough mouth. Anchor one boom end near downstream riprap bank. Anchor upstream boom end to forested tip, leaving a trailing boom length to maintain seal during tidal vacillations. Skim at riprap closure if spill is in slough.

<u>Strategy 2-021.2 Objective: deflection to collection away from slough to opposite side of San Joaquin River</u> when oil is coming down-river from upstream.

Anchor boom diagonally upstream 100'+ from mouth diagonally downstream and across the San Joaquin River to west side riprap levee (shallows). Skimming (Shore-Side Skimming) collection on west side. Be prepared to close mouth with additional boom if oil escapes. A backup deployment with equal equipment may be necessary. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect any oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-021.3 Objective: Oil Recovery by skimming

Deploy skimmer if oil accumulates in skimmable quantities. Consult with IC prior to initiating this strategy.

#### **Table of Response Resources**

strategy	harbor	swamp	Other	sorb	-	Anchoring	Boom	Skiffs	Skim	mers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Туре	No	and	kinds	deploy	tend
2-021.1	0	300		200	2	2/25/DANFORTH	0	1				possibl	e land-based skimmer	2	
2-021.2	0	300	50 OS	300	2	2/25/DANFORTH	0	1						2	
2-021.3	0	0	0	0	0		0	0	1888	3	0				

#### LOGISTICS

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Levee roads border this site on north south and west. North & east levees can be reached via I-5 to Charter Way/Hwy 4 to levee via water 2 miles south of Stockton Port on the San Joaquin River. A six mile+ dead-end slough extending from the mouth on the San Joaquin River easterly with main stem and branch, Walker Slough, to I-5 (ACP boundary). Both branches extend well east of I-5.

LAND ACCESS: LEVEE NORTH IS PAVED; OTHERS ARE NOT

WATER LOGISTICS:

Shallow and shallower, snags

Limitations: depth, obstruction Launching, Loading, Docking

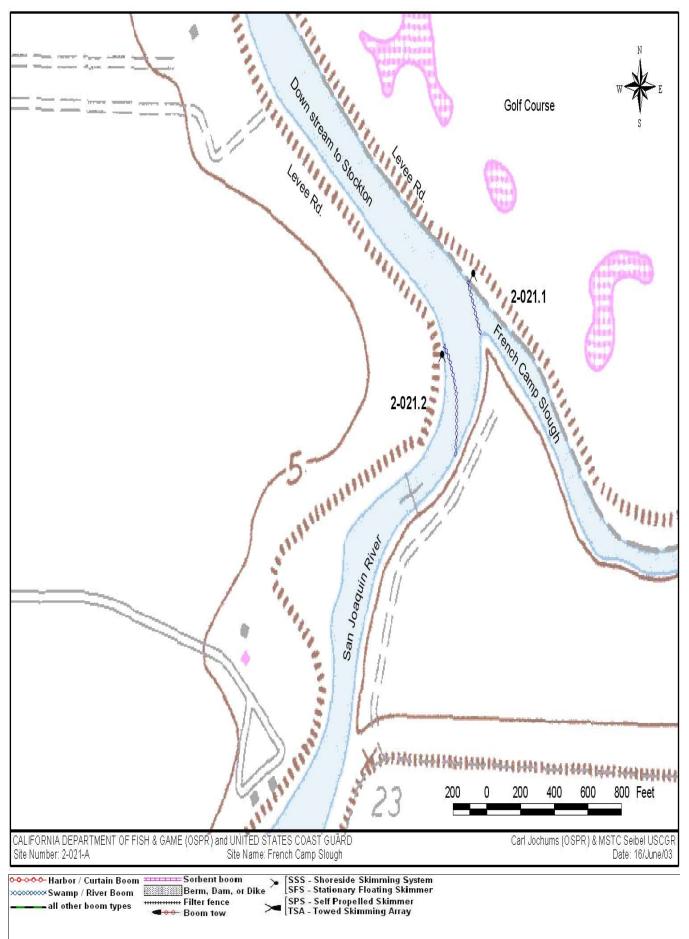
Stockton harbor area marina facilities.

and Services Available:

#### FACLITIES. STAGING AREAS. POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Adjacent levees should be adequate as long as roads are passable. Otherwise transport material by skiff (2 miles).

COMMUNICATIONS PROBLEMS: none known



#### 2-030 -A Site Summary- San Joaquin River, Roberts Island Reach

2-030 -A

**Thomas Guide Location** Latitude N Longitude W 37 59.7 121 25 7 County: SF Bay and Delt San Joaquin USGS Quad:

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

Holt

Site is from intersection of San Joaquin River and Deep Water Channel at the Port of Stockton (R 48) to Turner Cut at Aker Island, and includes Walters Island. Adjacent sites are Calaveras River, Burns cutoff, and Fourteenmile Slough. This section of the Stockton Deep Water Channel is heavily ripped and modified. Some mature trees and pockets of emergent vegetation line the edges. Walters Island remains in a more natural condition with emergent marsh and riparian shrub scrub.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Marshy areas like Walters Island are "A" priority at all times. Special Status Species include: Delta smelt (F/CT) in modest numbers during fall/winter; Swainson's hawk (FSC/CT) and burrowing owl (CSC).

#### **RESOURCES OF PRIMARY CONCERN**

The habitat on Walters Island is natural marsh to riparian. Aquatic environment supports freshwater community. Low dissolved oxygen can stress this community in late summer. Most of the channel length is riprap and supports life which can utilize extremely disturbed areas.

Walters Island supports a rich diversity of bird life. Swainson's hawk (FSC/CT) and burrowing owl (CSC) nest and forage north of and along the harbor.

During fall/winter Delta smelt (F/CT) occur in modest numbers. Juvenile and adult striped bass are typical as are warm water species.

Freshwater invertebrates are those typical of low salinity delta waters.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

## KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Dominick Gulli	Terminous Tract Reclamation District	(209) 465-5883
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

#### Site Strategy - San Joaquin River, Roberts Island Reach 2-030 -A

County and Thomas Guide Location NOAA CHART SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

Latitude N Longitude W 121 25.7

2-030 -A

**CONCERNS and ADVICE to RESPONDERS:** 

37 59.7 7/1/2005

Last Page Update:

Oil issues are penetration and cleanup of marshy vegetation, riprap, pilings and collection behind seawalls and under wharves.

#### **HAZARDS and RESTRICTIONS:**

Waters are deep draft except in margins and side channels of SJ River. Aerial traffic beware of power wires.

#### SITE STRATEGIES

Strategy 2-030.1 Objective: Diversion/Collection/exclusion/containment boom to halt oil movement in Stockton **Channel** 

Set 1200' 9x9+ boom in a long diagonal boom across the Stockton Deep Water Channel from light G27 to natural collection "point" on Roberts Island (best access). Depending on prevailing conditions and oil movement Rindge Tract may be alternate collection site. Use 50ft of Oil Snare (OS), 100 ft of sorbent boom to collect any oil that may accumulate.

Strategy 2-030.2 Objective: Exclusion/protection booming of openings and marshy margins Walters Island to keeping oil from backside channel and cover Deep Water frontage with sorbent.

Set two exclusion booms. One at each end of Island. 800 ft at east end and 1200 at west across backside slough opening. Anchor near riprap levee and with long Island overlap on Channel side. Leave a trailing boom length to maintain seal during tidal vacillations. Put sorbent across remainder of exposed channel side. Wind wash can be a problem here.

Strategy 2-030.3 Objective: Oil Recovery by skimming

Deploy skimmer if oil accumulates in skimmable quantities. Consult with IC prior to initiating this strategy.

**Table of Response Resources** 

strategy	harbor	swamp	Other	sorb	A	Anchoring	Boom	Skiffs	Skimr	ners		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No ·	Туре	No	and	kinds	deploy	tend
2-030.1	1200		50 OS	100	6	6/25lb/danforth	1	1						9	
2-030.2	2000			3000	9	9/25/DANFORTH	2	1						9	
2-030.3	0	0	0	0	0		0	0	1SSS	;	0				

#### LOGISTICS

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site by boat accessible is from Windmill Cove Marina and marinas at Stockton Harbor. Excellent access from Roberts Island (to south) from Hwy 4. Also access from private levee roads on Rindge Tract and Wright Tract from I-5 via 8mile Road and March Lane. Site is from intersection of San Joaquin River and Deep Water Channel at the Port of Stockton (R 48) to Turner Cut at Aker Island, and includes Walters Island. Adjacent sites are Calaveras River, Burns cutoff, and Fourteenmile Slough.

ROADS:PAVED SOUTH, SEASONAL NORTH SIDE LAND ACCESS:

WATER LOGISTICS:

Limitations: depth, obstruction

deep draft, except near shore

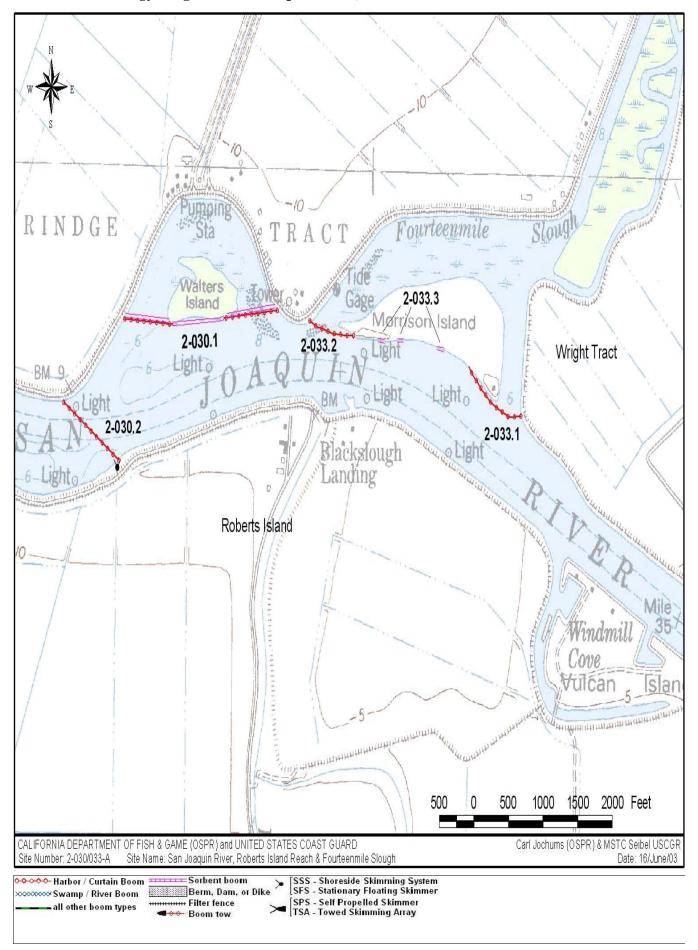
and Services Available:

Launching, Loading, Docking A full range of marine facilities are at Stockton harbor. Windmill Cove Resort on Roberts Island on south side of site has fuel, launch and docks.

#### FACLITIES. STAGING AREAS. POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good major deployment site on Roberts Island at light R 32 (mouth of Turner Cut): Dock and crane available. Deployment from near side Rindge Tract levee is also possible.

**COMMUNICATIONS PROBLEMS:** none known



2-033 -A

Last Page Update: 7/1/1996

**Thomas Guide Location** Latitude N Longitude W 38 00 County: SF Bay and Delt 121 25 San Joaquin USGS Quad: Stockton West, Holt

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

SITE DESCRIPTION:

From Morrison Island (at G 31 & 33) on the Stockton Deep Water Channel, the site extends 4 miles northeasterly to a split. One channel continues east and south 6 miles to I-5, the other northerly 6 miles to junction with Disappointment Slough. The first three miles are DMRP designated Natural Resource Area with Significant Habitat Values and a Significant Natural Area (CDFG-NHD). The Slough is laced with channels between natural marshy berm and channel islands including Morrison Island at the mouth. Levee banks are ripped and pocketed with emergent marshy/riparian growth. The upper Slough is less luxuriant.

#### SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species are present: During Nov- Dec. modest numbers of Delta smelt (F/CT): winter-run chinook (F/CE) are a modest concern from mid Oct 15- May; two rare plants.

#### **RESOURCES OF PRIMARY CONCERN**

Extensive and ecologically rich marshy margins, islands and riparian growths. Diversified aquatic community including T/E species and migrant fish.

Bird life are typical marshy and riparian species including; waterbirds and marsh birds.

Other vertebrates are typical riverine and semiaguatic species. This may be habitat for western pond turtle.

During fall/winter Delta Smelt (F/CT) have a modest presence. Juvenile and adult striped bass are typical as are warm water species.

Rare plants include: California Hibiscus and Mason's lilaeopsis.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

#### KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Holden Brink	US Bureau of Land Management	(916) 683-1740
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Pat Metelli	Cargill Salt	(510) 790-8610
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

#### **Site Strategy - Fourteenmile Slough** 2-033 -A

County and Thomas Guide Location NOAA CHART 2-033 -A

SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

38 00

Longitude W 121 25

#### **CONCERNS and ADVICE to RESPONDERS:**

Last Page Update:

Concern is to stop oil from moving from the channels to the many marshy islands in Fourteenmile Slough, because this would permit oil penetration into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands. Cleanup will be very difficult here.

#### **HAZARDS and RESTRICTIONS:**

Aerial traffic beware of high wires. Poison Oak. Slips trips and falls on levee riprap.

#### SITE STRATEGIES

Strategy 2-033.1 Objective: Exclusion/containment boom of mouth at each end of Morrison Island (at lights G33 & G31)

At EAST END of Morrision Island, set boom across east slough mouth. Anchor one boom end near upstream riprap levee. Anchor other end to Morrison Island near channel marker G 33. Back with sorbent, leaving a trailing boom length for a tidal seal. Wind wash can be a problem here. At WEST END or Morrision Island, anchor one end of 9x9+ boom at Rindge Tract levee and other lapping well onto Stockton Channel face well up from Morrison Island tip. Leave trailing boom ends for tidal seal.

Strategy 2-033.2 Objective: Protection boom and sorbants of emergent vegetation on Morrison Island.

Place sorbent boom around patches of emergent vegetation along the sandy beaches on the channel side of Morrison Island.

**Table of Response Resources** 

strategy	harbor sv	wamp	Other	sorb	-	Anchoring	Boom	Skiffs	Skim	nmers	;	Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Туре	No	and	kinds	deploy	tend
2-033.1	1100			500	8	8/15+/DANFORTH	2	1						6	
2-033.2	0			500			0	1						2	

#### LOGISTICS

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is by boat accessible from Stockton Deep Water Channel at markers G 31 and 33. Private levee roads are accessible on west (Rindge tract) via I-5 to 8-mile Road to Rio Blanco Rd and east from surface streets off of I-5 (March Lane exit, SW to Brookside to levee). From Morrison Island (at G 31 & 33) on the Stockton Deep Water Channel, the site extends 4 miles northeasterly to a split. One channel continues east and south 6 miles to I-5, the other northerly 6 miles to junction with Disappointment Slough.

LAND ACCESS: LEVEE ROADS good unless wet

WATER LOGISTICS:

depth problems only near shore

Limitations: depth, obstruction

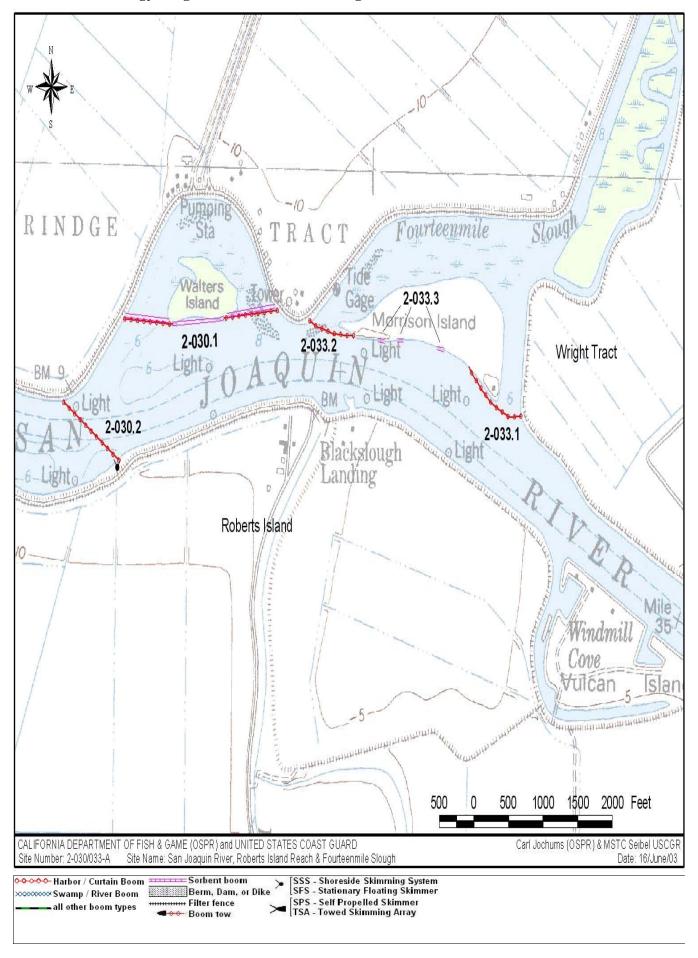
and Services Available:

Launching, Loading, Docking Boat launch and rental boats just across channel at Windmill Cove Resort. Stockton harbor has all manner of marina facilities.

## FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Deployment possible from nearby levees. Also from Windmill Cove Resort. Consider using the tip of Roberts Island at Turner Cut/Acker Island as a major deployment site for this section of the Channel. Stockton Port has all manner of support facilities.

**COMMUNICATIONS PROBLEMS:** none known



#### Site Summary- San Joaquin River, Hog Island Cut Complex 2-040 -A

2-040 -A

**Thomas Guide Location** Latitude N Longitude W 3800 121 27 County: SF Bay and Delt San Joaquin USGS Quad:

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

Holt

Site is an island complex along the Deep Water Channel from light R18 to light R24. These include Hog, Spud, Acker and many small channel and berm Islands. This area has been designated as a Significant Natural Area (DFG-NHD) and a Natural Resource Area with Significant Habitat Values (Delta Master Recreational Plan). Though some parts of the islands are partially developed, most are in very natural states varying from marsh to shrub scrub to riparian. The channels bordering agricultural islands have heavily ripped levees.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Rich marsh and riparian areas here have "A" priority all year. Special Status Species occur here: Delta smelt (F/CT) and winter-run chinook (F/CE) occur in modest numbers in fall to spring; rare plants.

# **RESOURCES OF PRIMARY CONCERN**

The islands here are very natural, varying from marshy to upland riparian. Some of the islands have flooded interiors with channels communicating with the river. Aquatic environment supports diverse freshwater community.

This is extremely diverse and valuable bird habitat.

Other vertebrates include riverine and marsh species of all kinds. Western pond turtle (F/CSC) occurs here.

This area has modest occurrence of Delta smelt during fall/winter and a moderate density of winter-run chinook smolts from mid Oct to June. Juvenile and adult striped bass are typical as are warm water species.

Rare plants are found throughout this site. These include California hibiscus, Mason's lilaeopsis, and Suisun marsh aster.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

#### KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone	
Е	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551	
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464	
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166	
E	Dominick Gulli	Terminous Tract Reclamation District	(209) 465-5883	
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528	
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190	
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268	
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883	

#### Site Strategy - San Joaquin River, Hog Island Cut Complex 2-040 -A

County and Thomas Guide Location SF Bay and Delt San Joaquin

NOAA CHART 18661 SACRAMENTO / SAN JOAQUIN RIVER Latitude N 3800

Longitude W 121 27

2-040 -A

7/1/2005 Last Page Update: **CONCERNS and ADVICE to RESPONDERS:** 

The major Concern here is to prevent/minimize oiling of marshes and vegetation of the many small islands here. The strategies are designed to close side channels, block oil movement, and direct oil to collection, and penetration into burrows and riprap. Responders should try to minimize trampling vegetation and trampling oil into sediments.

#### **HAZARDS and RESTRICTIONS:**

Waters are deep draft except in channel on backside of Hog Island. Aerial traffic beware of power wires.

#### SITE STRATEGIES

Strategy 2-040.1 Objective: NORTH SIDE: Exclude oil from backside of north Hog Island setting boom at each end of backside channel.

Set two exclusion booms. One at each end of Island. 200 ft at east end and 600 at west across backside slough opening. 1000 ft from Hog to island to west and a second 1200 stretch from there to Rindge Tract levee. Sorbent or swamp boom west marsh of westerly island. Anchor near riprap levee leaving a trailing boom length to maintain seal during tidal vacillations. Possible skim at east end.

Strategy 2-040.2 Objective: SOUTH: Exclude oil from 21 Mile Slough (south margin of Spud Island) by booming each end.

Set 600 ft of boom from Spud Island to Lost Island Resort. Set 1000 ft of boom from McDonald Island levee to west tip of Spud Island. Leave trailing ends to keep seal during tidal seal. Sorbent boom blocks across small channels admitting to interior marsh of Spud Island. Also execute Strategy (2-963) to exclude oil from Turner Cut.

Strategy 2-040.3 Objective: WEST: Exclude/Divert/Collect boom, divert oil to levee bank for collection as wind and currents permit.

Set 2000 ft of ocean boom across channel at a long diagonal from opposite and upstream of light 18 to pocket eddy on south side of Channel. Set up collection at levee offering collection (typically the McDonald Island levee). Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Wind wave wash is a problem here.

Strategy 2-040.4 Objective: Oil Recovery by skimming

Deploy skimmer if oil accumulates in skimmable quantities. Get authorization from IC prior to the initiation of this strategy.

**Table of Response Resources** 

strategy	harbor	swamp	Other	sorb	-	Anchoring	Boom	Skiffs	Skim	mers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-040.1	3000			3000	10	10/25/ & 5/15/DANFORTH						possib	ole land skimming	4	
2-040.2	1600			200	8	8/25/danforth								4	
2-040.3	2000		50 OS	100	12	14/40lbs/danforths	3	0						9	
2-040.4	0	0	0	0	0		0	0	188	S	0				

## LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site (lights R18- R24) is by boat accessible from Windmill Cove Marina and or other central & east delta marinas. Vehicle access from Roberts Island (to south) from Hwy 4. Also access from private levee roads on Rindge Tract from I-5 via 8-mile Road. Site is an island complex along the Deep Water Channel from light R18 to light R24. These include Hog, Spud, Acker and many small channel and berm Islands.

ROADS:PAVED SOUTH, SEASONAL ON NORTH LAND ACCESS:

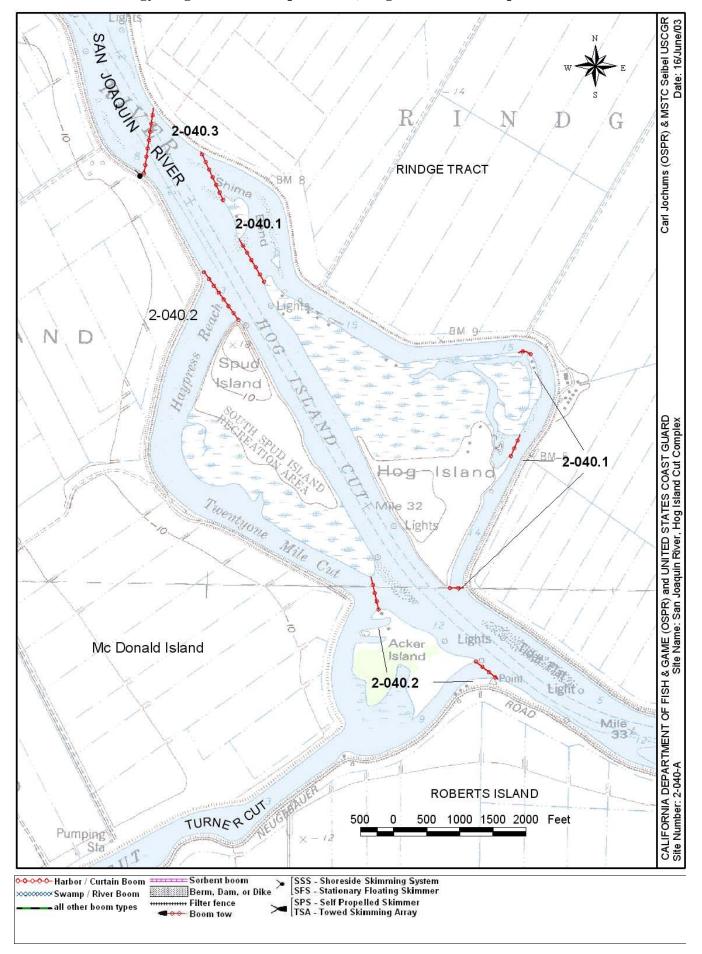
WATER LOGISTICS: deep draft, except near shore Limitations: depth, obstruction

Windmill Cove Resort on Roberts Island on south side of site. Stockton harbor area marina Launching, Loading, Docking and Services Available: facilities.

#### FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good staging site on Roberts Island to southeast at light R 32. Deployment from near side Rindge Tract and McDonald Island levees is also possible.

**COMMUNICATIONS PROBLEMS:** none known



2-045 -A

Last Page Update: 7/1/1996

Thomas Guide Location Latitude N Longitude W 38 02.4 County: 121 28.9 SF Bay and Delt San Joaquin USGS Quad:

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

SITE DESCRIPTION:

Holt

This site extends about 7 miles from its mouth behind north Fern Island (north of Ward Cut) easterly to I-5, and includes the side channels Honker and Bishop Cuts. Throughout its length, it is laced with cross channels between its many marshy berm and channel islands. These islands are ecologically rich and covered with shrub-scrub and emergent vegetation. At the upper end near I-5 are several acres of mature riparian growth. Levee banks are ripped with pockets of emergent marshy/riparian growth. The Slough is a Delta Master Recreation Plan designated Natural Resource Area with Significant Habitat Values.

#### SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh and riparian vegetation zones here are of "A" concern year-round. Special Status Species here include: winter-run chinook (F/CE) are a considerable concern from Oct 15- May 31; Swainson's hawk (FSC/CT); several rare plants occur here.

#### RESOURCES OF PRIMARY CONCERN

Ecologically sensitive and valuable marshy islands, margins and riparian growths are found throughout the length of this site. The water supports the typical diversified Delta aquatic community.

The Swainson's hawk (FSC/CT) occurs in this area. Site is rich in bird life typical of marshy and riparian species including waterfowl and marsh birds.

Other vertebrates are typical riverine species. Western pond turtle (F/CSC) occurs here.

Juvenile winter-run chinook can be of some concern here. Juvenile and adult striped bass are typical as are warm water species.

In addition to the rich marshy, shrub-scrub, and riparian growths on islands and margins, rare plants occur here including California hibiscus, Suisun marsh aster and Mason's lilaeopsis.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

# KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone	
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464	
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166	
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528	
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190	
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883	

#### Site Strategy - Disappointment Slough 2-045 -A

2-045 -A County and Thomas Guide Location Latitude N NOAA CHART

SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

Longitude W 38 02.4 121 28.9

**CONCERNS and ADVICE to RESPONDERS:** 

Last Page Update:

Concern here is the protecting the many marshy channel islands and sensitive plants found there from oiling. The strategies are designed to keep oil from entering this channel by exclusion/collection booming. Responders should beware that sensitive plants are common here, and should avoid trampling vegetation. Also avoid tramping oil into sediments.

#### **HAZARDS and RESTRICTIONS:**

Aerial traffic beware of high wires. Poison Oak. Slips trips and falls on levee riprap. Beware of shallows and snags in side channels.

#### SITE STRATEGIES

Strategy 2-045.1 Objective: Exclude/Contain booming the slough mouth near the Ship Channel) at west end

Set booms across channels at slough mouth. Anchor one boom end near west side riprap levee (Empire Tract) 800 ft across the slough on an upstream diagonal to the tip of Fern Island. Anchor a second boom length from Fern Island to mid-channel berm island and then on to the tip of Rindge Tract (500ft). Leave trailing boom lengths for a tidal seal. Back with sorbent boom.

Strategy 2-045.2 Objective: Exclude/Contain booming at Honker Cut and Bishop Cut.

Honker Cut: At the intersection of Honker Cut and Disappointment Slough anchor one end of 4X4+ boom (200) at King Island levee and the other at Empire Tract, leaving trailing boom ends for tidal seal. This strategy can be deployed nearer 8 Mile Road if circumstances are favorable. Site may be appropriate for Shore-Side Skimming.

Bishop Cut: At the intersection of Bishop Cut and Disappointment Slough anchor one end of 4X4 boom (200) at Bishop Tract levee and the other at King Island leaving trailing boom ends for tidal seal. This strategy can be deployed nearer 8 Mile Road if circumstances are favorable. Site may be appropriate for Shore-Side Skimming.

Table of Response Resources

IUDIO	01 1101	<del>JPO 110</del>	<del>c recou</del>	. 000											
strategy	harbor	swamp	Other	sorb	A	Anchoring	Boom	Skiffs	Skin	nmers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-045.1	1300			1500	5	2/25 & 3/15/DANFORTH								2	
2-045.2	0	400			2	2/15lb/danfort4	0	1						2	

#### LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to deployment is by boat. Site is water accessible from Stockton Deep Water Channel north at G 14 and from marinas on adjacent islands. Key land access is from private levee roads Rindge and Empire Tracts via 8-mile Rd from I-5. This site extends about 7 miles from its mouth behind north Fern Island (north of Ward Cut) easterly to I-5, and includes the side channels Honker and Bishop Cuts.

LAND ACCESS: LEVEE ROADS good unless wet

WATER LOGISTICS: depth problems only near shore

Limitations: depth, obstruction

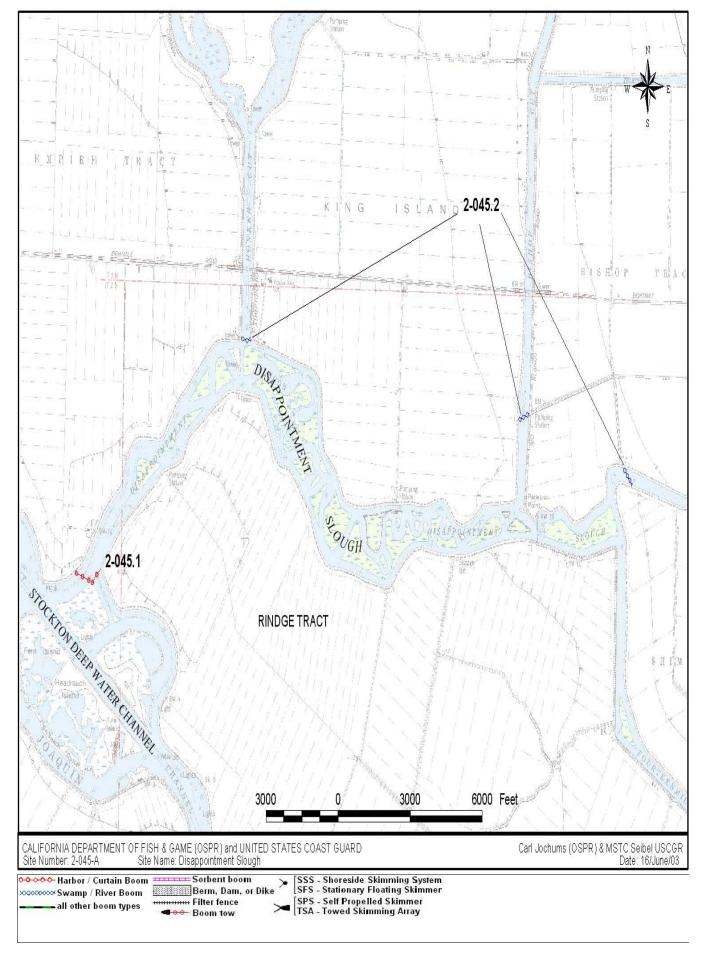
Marina service and boat launch are available at Herman & Helen's at end of 8-mile Rd, Launching, Loading, Docking

Paradise Point Marina at Bishop Cut, and also at Honker Cut. and Services Available:

#### FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Deployment possible from nearby levees. Also from nearby marinas consider using the end of 8-mile Rd as a major deployment site for this section of the Delta. Rental boats, restaurants, water, power, gas, marine repair and some camping is available at nearby marina/resorts.

**COMMUNICATIONS PROBLEMS:** none known



#### 2-050 -A Site Summary- San Joaquin River, Ward Cut Islands Complex

2-050 -A

**Thomas Guide Location** Latitude N Longitude W 38 02.3 121 29.4 County: SF Bay and Delt San Joaquin USGS Quad:

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

Holt

Site is an island complex along the Deep Water Channel from light R8 to light R16. These include Tinsley, Ward, Headreach, Fern, Little Venice Islands and many small unnamed channel and berm islands. This is a DMRP designated Natural Resource Area with Significant Habitat Values. Though some parts of the islands are partially developed, most are in very natural states varying from marsh to shrub scrub to riparian. The channels bordering agricultural islands have heavily ripped levees.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Rich marsh and riparian areas here have "A" priority all year. Special Status Species occur here: Delta smelt (F/CT) and winter run chinook (F/CE) occur in modest numbers in fall to spring; rare plants.

# **RESOURCES OF PRIMARY CONCERN**

The islands here are very natural, varying from marshy to upland riparian. Some of the islands have flooded interiors with channels communicating with the river. Aquatic environment supports diverse freshwater community.

This is extremely diverse and valuable bird habitat. The black rail (F/CT) occurs here.

Other vertebrates include riverine and marsh species of all kinds. Western pond turtle (F/CSC) occurs here.

This area has modest occurrence of Delta smelt during fall/winter and a moderate density of winter-run chinook smolts from mid Oct to June. Juvenile and adult striped bass are typical as are warm water species.

Valley elderberry long horn beetle (FT) has been found here.

Rare plants are found throughout this site. These include California hibiscus, Mason's lilaeopsis, and Suisun marsh aster.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

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TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464	
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166	
E	Dominick Gulli	Terminous Tract Reclamation District	(209) 465-5883	
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528	
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190	
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268	
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883	

# 2-050 -A Site Strategy - San Joaquin River, Ward Cut Islands Complex

River, Ward Cut Islands Complex

2-050 -A

Latitude N Longitude W

County and Thomas Guide Location

SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

38 02.3 121 29.4

**CONCERNS and ADVICE to RESPONDERS:** 

Last Page Update: 7/1/2005

The major oil issues here are oiling of vegetation and marshes and penetration into burrows and riprap.

#### **HAZARDS and RESTRICTIONS:**

Waters are deep draft except in narrow channels between islands, beware of snags and pilings in the shallows. Aerial traffic beware of power wires. Slips, trips and falls.

#### SITE STRATEGIES

Strategy 2-050.1 Objective: EAST End: Exclude/Divert/Collect boom ( at light R16) and divert oil to shore for collection.

Set 12X12 exclusion/diversion booms across the main channel at a diagonal. Deploy to favor collection of oil on the Rindge Tract shore if possible. Be prepared to execute secondary booming on the three channels at the east end if the primary boom is not adequate: 300' of 9x9+ boom from Rindge Tract levee to opposite isle tip on north side. Set a second 300' boom from McDonald IsI to Tule IsI. Anchor near shore leaving a trailing boom length to maintain seal during tidal vacillations. Back with sorbent. Shoreside skimming from Rindge Tract (or McDonald IsI). Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

<u>Strategy 2-050.2 Objective: WEST END: Exclude/Divert/Collect boom. Wind waves are typically a problem</u> here.

At R6 set 1200 ft of 12X12+ boom in a long diagonal to divert oil to shore for land-side collection. Favor land-based skim/collect oil at the Venice Isl levee if wind and oil movement permit. Anchor near shore leaving a trailing length for shore seal. Back with sorbent.

Strategy 2-050.3 Objective: Sorbent and exclusion boom included islands as necessary.

boom various sites, small sloughs, and marsh fronts as indicated in the strategy diagrams. Execute adjacent site strategies.

Strategy 2-050.4 Objective: Oil Recovery by skimming

Deploy skimmer from Rindge Tract (or McDonald IsI) when oil accumulates in skimmable quantities. Get authorization from IC prior to the initiation of this strategy.

**Table of Response Resources** 

strategy	harbor	swamp	Other	sorb	,	Anchoring	Boom	Skiffs	Skin	mers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-050.1	1600		50 OS	2100	5	2/25/, 1/50/ & 2/15/DANFORTH	2	1						8	
2-050.2	1200			1200	5	4/25/ & 1/50/danforth	2	1						8	
2-050.3	0	4000		4000	14	14/15lbs/danforths.	0	2						4	
2-050.4	0	0	0	0	0		0	0	1SS	S	0				

#### LOGISTICS

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site (lights R8- R16) is by boat accessible from Herman & Helen's Marina or other central & east delta marinas. Vehicle access is from bordering levees: only Empire Tract is easily accessible via 8-mile Road from I-5. Site is an island complex along the Deep Water Channel from light R8 to light R16. These include Tinsley, Ward, Headreach, Fern, Little Venice Islands and many small unnamed channel and berm islands.

LAND ACCESS: ROADS SEASONAL

**WATER LOGISTICS**: deep draft, except near shore

Limitations: depth, obstruction

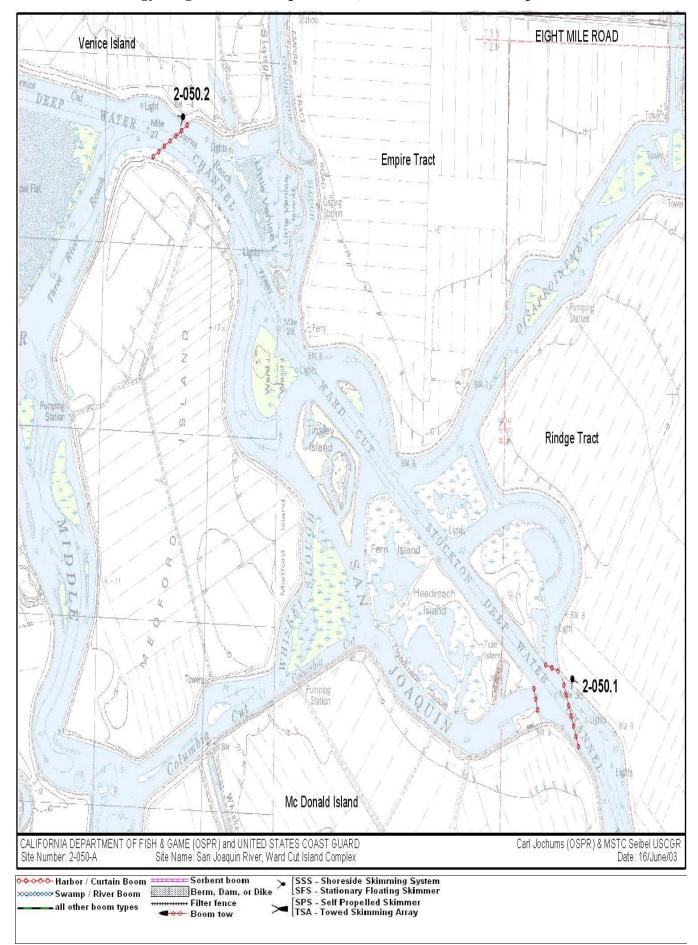
Launching, Loading, Docking Nearest marine facilities, fuel and launch are at Herman & Hellens at the end of 8-mile Rd.

and Services Available:

#### FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good deployment staging site at tip of Empire Tract on San Joaquin R. Facilities on Empire Tract include rental boats and houseboats, fuel, moorage, restaurant, electricity and water, marine supply and repair and some camping.

COMMUNICATIONS PROBLEMS: none known



# 2-060 -A Site Summary- San Joaquin River, Mandeville/Venice Tips Complex 2-060 -A

Thomas Guide Location Latitude N Longitude W
SF Bay and Delt 38 03.5 121 32

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

San Joaquin

**Bouldin Island** 

County:

USGS Quad:

Site is island tips separated from main islands by construction of the Deep Water Channel from light R6 to light R58. These include Mandeville Tip and Venice Tip and the many small unnamed channel and berm islands and surrounding channels. This is a DMRP designated Natural Resource Area with Significant Habitat Values. In addition to the very rich natural habitat varying from marsh to shrub scrub to riparian, there is a heron rookery here. These triangular shaped tips were once part of adjacent islands but are now flooded to varying degrees and partially enclosed with historic levees. Each have marshy margins both inside and out and small associated islands. The portions facing the channel are not leveed. The neighboring agricultural islands have heavily ripped levees.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Rich marsh and riparian areas here have "A" priority all year. Special Status Species occur here: Delta smelt (F/CT) and winter-run chinook (F/CE) occur in modest numbers in fall to spring; rare plants.

## **RESOURCES OF PRIMARY CONCERN**

The islands here are very natural, varying from marshy to upland riparian. There is a heron rookery here. The tips have flooded interiors with channels communicating with the river. The marshy shoreline exposure is extensive. Aquatic environment supports diverse freshwater community. Protection problems because of extensive exposure and difficulties presented by expansive surrounding waters.

This is extremely diverse and valuable bird habitat. There is a great blue heron rookery in the trees of Venice Tip. The black rail (F/CT) and Swainson's hawk (FSC/CT) occur in this area.

Other vertebrates include riverine and marsh species of all kinds. This is probably habitat for western pond turtle (F/CSC).

This area has modest occurrence of Delta smelt during fall/winter and a moderate density of winter-run chinook smolts from mid Oct to June. Juvenile and adult striped bass are typical as are warm water species.

Rare plants are found all through this site. These include California hibiscus, Mason's lilaeopsis, and Suisun marsh aster.

# **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

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В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

#### Site Strategy - San Joaquin River, Mandeville/Venice Tips Complex 2-060 -A 2-060 -A

County and Thomas Guide Location

NOAA CHART

Latitude N

SF Bay and Delt San Joaquin 18661 SACRAMENTO / SAN JOAQUIN RIVER 38 03.5 121 32

Longitude W

#### **CONCERNS and ADVICE to RESPONDERS:**

Last Page Update:

The major oil issues here are oiling of vegetation and marshes and penetration into burrows and riprap.

#### **HAZARDS and RESTRICTIONS:**

Waters are deep draft except in narrow channels between islands, beware of snags and pilings in the shallows. Aerial traffic beware of power wires. Slips, trips and falls.

### SITE STRATEGIES

Strategy 2-060.1 Objective: WEST END: Exclude/Divert/Collect booming (at R58)

At G57 set 2000 ft of 12X12+ boom in a diagonal across the river and upstream (east) (if oil is moving from west). Land based skim/collect oil at the Mandeville (and possibly the Venice) Isl levee. Anchor near shore, leaving a trailing length for shore seal. Back with sorbent. Reverse if oil is moving from east. Wind waves are a problem.

Strategy 2-060.2 Objective: Exclude oil from main marsh exposure to channel and smaller channel openings from ship channel and river.

Deploy 4X4+ across each SJR Channel face: 4000' at Venice tip and 2500' at Mandeville. Back with sorbent. Block small sloughs, and perimeter marsh edges with 4X4 and sorbents.

Strategy 2-060.3 Objective: EAST END: Exclude/Contain boom (ar R6), excute Ward Cut and Middle River **Strategies** 

Execute adjacent site strategies: See strategy for Ward Cut Complex (2-050.2) and strategy for Middle River Mouth - (2-950.1)

Table of Response Resources

strategy	harbor	swamp	Other	sorb	Α	Inchoring	Boom	Skiffs	Skim	mers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-060.1	2000			2000	8	8/25/danforth	3	1	3/1					8	
2-060.2	0	8000		8000	14	14/15lbs/danforths	3	1	3/1					8	
2-060.3	0														

#### LOGISTICS

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is from the Ship Channel (lights R58- R6) is by boat from Herman & Helen's or Korth's Marina or other central delta marinas. Vehicle access is from bordering levees: only Empire Tract and Venice Island is easily accessible via 8-mile Road from I-5. Site is island tips separated from main islands by construction of the Deep Water Channel from light R6 to light R58. These include Mandeville Tip and Venice Tip and the many small unnamed channel and berm islands and surrounding channels.

**ROADS SEASONAL** LAND ACCESS:

WATER LOGISTICS: deep draft, except near shore

Limitations: depth, obstruction

Launching, Loading, Docking Nearest marine facilities, fuel and launch are at Herman & Hellens at the end of 8-mile Rd and

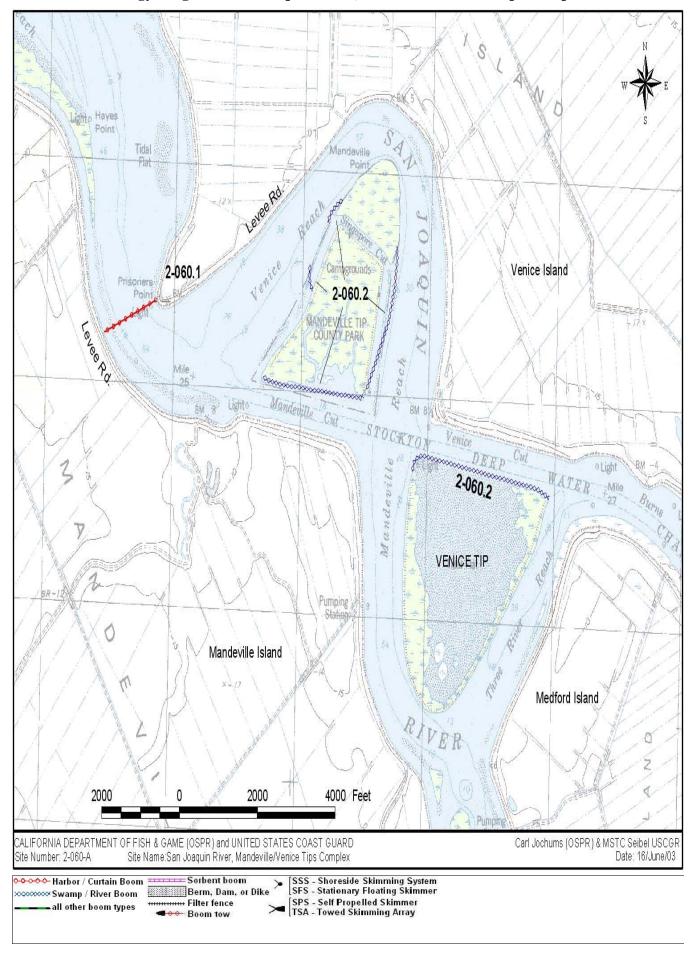
the mouth of Mokelumne to west. and Services Available:

# FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good deployment staging site at tip of Empire Tract on San Joaquin R. Also levees of Venice Island. Facilities on Empire Tract include rental boats and houseboats, fuel, moorage, restaurant, electricity and water, marine supply and repair and some camping.

**COMMUNICATIONS PROBLEMS:** none known

2-060 -A Strategy Diagram- San Joaquin River, Mandeville/Venice Tips Complex 2-060 -A



**Thomas Guide Location** Latitude N Longitude W 38 03.3 121 30 County: San Joaquin SF Bay and Delt USGS Quad:

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

**Terminous** 

This site extends about 4 miles from its mouth at the Stockton Deep Water Channel at G 11 northerly to its junction with the South Mokelumne River at Hwy 12. White and Potato Slough intersect this reach. Although most of its length the Slough is bordered with ripped levees, it is designated a Natural Resource Area with Significant Habitat Values (DMRP). Several Special Status Species occur here, and there are several sizable channel islands and some berm islands. At the San Joaquin River end of the channel is an ecologically rich area, Little Venice Island, which is a shallow flooded island surrounded by eroding levees and natural vegetation. This lower area is very vulnerable and difficult to remediate. This water way is also an important path for south delta water export.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

Marsh and riparian vegetation here are of "A" concern year-round. Special Status Species occur here: winterrun chinook (F/CE), of considerable concern from Oct 15- May 31; the Swainson's hawk (FSC/CT); several rare plants.

#### **RESOURCES OF PRIMARY CONCERN**

Vulnerable marshy margins, islands and riparian growths are found throughout the length of this site, especially on marshy channel islands and Little Venice Island. The diversified aquatic community is typical for the Delta.

The black rail and Swainson's hawk (both FSC/CT) occur in this area. Site is rich in bird life typical of marshy and riparian species including waterfowl and marsh birds.

Other vertebrates are typical riverine species. Western pond turtle (F/CSC) occurs here. There are reports of giant garter snake here (F/CT).

Juvenile winter-run chinook can be of some concern here. Juvenile and adult striped bass are typical as are warm water species.

In addition to the marshy islands and margins, rare plants occur here including California hibiscus, Delta mudwort, Suisun marsh aster and Mason's lilaeopsis.

#### **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

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BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

#### **Site Strategy - Little Potato Slough** 2-065 -A

2-065 -A County and Thomas Guide Location Latitude N Longitude W NOAA CHART

SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

38 03.3 121 30

Last Page Update:

#### **CONCERNS and ADVICE to RESPONDERS:**

Emergent and marsh vegetation cleaning issues.

Penetration into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands.

#### **HAZARDS and RESTRICTIONS:**

Aerial traffic beware of high wires. Poison Oak. Slips trips and falls on levee riprap. Beware of shallows and snags in side channels.

#### SITE STRATEGIES

Strategy 2-065.1 Objective: SOUTH END: Exclusion/Containmet at the Slough mouth (near Ship Channel); Site subject to strong wind/currents.

Set booms across slough mouth between Venice Island and Empire Tract. Anchor one boom end from near west side levee on corner of Venice Isl and the other end near east side riprap levee (Empire Tract) 1000 ft across the slough on a diagonal appropriate to divert oil to Empire shore for collection. Leave trailing boom lengths for a tidal seal. Back with sorbent boom.

Strategy 2-065.2 Objective: NORTH END: Exclusion/Containment of Slough at South Mokelumne River iunction.

Anchor one end of 6X6 boom at the west base of old bridge abutment and anchor the other end downstream at a diagonal toward Terminous shore, leaving trailing boom ends for tidal seal. Use Terminous shore as possible skim/collection site. Back with sorbent.

Strategy 2-065.3 Objective: Exclusion (at Ship Channel) of LITTLE VENICE ISLAND and side Sloughs.

Execute strategies for Whites Slough (2-070) and Potato Slough (2-080). For Little Venice Island block openings from San Joaquin with 500'6X6+ exclusion boom; and also for opening from Little Connection Slough use 3000'4X4+ exclusion boom. Back with sorbents.

**Table of Response Resources** 

strategy	harbor boom	swamp boom	Other boom type	sorb	A no	nchoring type and gear		Skiffs punts	-	mers		Special Equipment or c		ff Staff oy tend
2-065.1	1000			1000	4	4/25/DANFORTH	Dour	punto	140	Type	140	and kinds	2	Sy Tonia
2-065.2	0	300		300	2	2/25lb/danforth	0	1				possible skim	2	
2-065.3	0	3500			10	10/15lbs/danforth	0	1					2	

## **LOGISTICS**

## DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to deployment is by boat. Site is water accessible from Stockton Deep Water Channel north at G 14 and from marina on adjacent islands. Land access is from private levee roads Bouldin Isl. via Hwy 12 and Empire Tract via 8-mile Rd from I-5. This site extends about 4 miles from its mouth at the Stockton Deep Water Channel at G 11 northerly to its junction with the South Mokelumne River at Hwy 12. White and Potato Slough intersect this reach.

LAND ACCESS: LEVEE ROADS GOOD

WATER LOGISTICS:

depth problems only near shore

Limitations: depth, obstruction

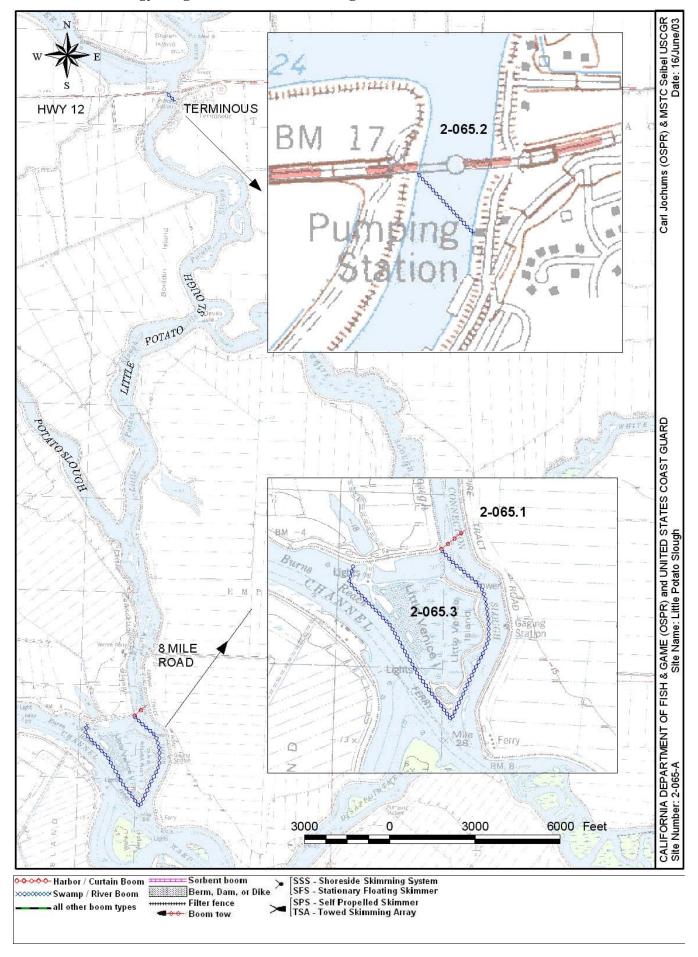
Launching, Loading, Docking Marina service and boat launch are available at Herman & Helen's at end of 8-mile Rd and at

and Services Available: Terminous on Hwy 12.

# FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Deployment possible from nearby levees. Also from nearby marinas Consider using the end of 8-mile Rd as a major deployment site for this section of the Delta. Rental boats, restaurants, water, power, fuel, marine repair and some camping is available at nearby marina/resorts.

**COMMUNICATIONS PROBLEMS:** none known



2-070 -A

Thomas Guide Location Latitude N Longitude W
San Joaquin SF Bay and Delt 38 05.3 121 34.2

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

Holt

County:

USGS Quad:

This site begins at its mouth on Little Potato Slough two miles south of Terminous to its junction with the San Joaquin River six miles westerly. It is bordered by Bouldin Island on the north and Venice Island to the south. The Slough is Delta Master Recreational Plan designated a Natural Resource Area with Significant Habitat Value. The slough has many marshy berm and channel islands in natural condition; some are larger than an acre. Levee banks are ripped with pockets of emergent marshy/riparian growth.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

The marshy habitat here is of "A" priority all year. Special Status Species occur here: winter-run chinook (F/CE) are a considerable concern from Oct 15- May 31; several rare plants.

#### **RESOURCES OF PRIMARY CONCERN**

There are many marshy margins and islands with freshwater marsh riparian growths which support rich biota and sensitive species. The water habitat supports a diversified aquatic community including T/E species and migrant fish.

Site is rich in bird life typical of marshy and riparian species including: waterfowl and marsh birds.

Other vertebrates are typical riverine mammal and reptile species.

Juvenile winter-run chinook can be of great concern here. Juvenile and adult striped bass are typical as are warm water species. Sacramento splittail and Delta smelt occur here at unpredictable levels.

The rare plants which occur here include Delta tule pea, California hibiscus, Suisun marsh aster, and Mason's lilaeopsis.

Luxuriant freshwater marsh and willow shrub-scrub dominate inlands.

## **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

# KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

# 2-070 - A Site Strategy - Potato Slough

County and Thomas Guide Location NOAA CHART

2-070 -A
Latitude N Longitude W

SF Bay and Delt San Joaquin

#### 18661 SACRAMENTO / SAN JOAQUIN RIVER

38 05.3 121 34.2

**CONCERNS and ADVICE to RESPONDERS:** 

Last Page Update :

Emergent and marsh vegetation damage and cleaning are the largest issues. Oil will penetrate into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands.

#### HAZARDS and RESTRICTIONS:

Aerial traffic beware of high wires. Poison Oak. Slips trips and falls on levee riprap.

#### SITE STRATEGIES

Strategy 2-070.1 Objective: Exclude/Contain boom at east Slough mouth on Little Potato Slough.

Set boom across the slough mouth. Anchor each boom end near adjacent riprap levees, leaving a trailing boom length for a tidal seal. Back with sorbent boom.

Strategy 2-070.2 Objective: Exclude/Contain boom mouth at San Joaquin River.

The slough is wide and exposed to wave wash and strong currents so that boom must be placed upstream and diagonal away from the River. At a bend of the west side (Bouldin Isl) levee about 100 yards upstream from mouth (at PG&E transformer), anchor one end of 8X8 boom and run 1200 ft of boom upstream to anchor other end near Venice Isl levee (east side). Leave trailing boom ends for tidal seal. The pocket at the Venice shore has natural collection eddies and may be suitable for collection/skim site.

**Table of Response Resources** 

strategy	harbor	swamp	Other	sorb	Α	nchoring	Boom	Skiffs	Skin	nmers		Special	Equipment or comment	staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-070.1	0	400		400	4	4/15/DANFORTH	0	1						2	
2-070.2	1200				2	2/40lb/danforth	2	1						8	

#### **LOGISTICS**

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site by boat accessible from Stockton Deep Water Channel to the west mouth at G51 and to the east mouth up (north) Little Potato Slough at marker G11. Private levee road are accessible on north (Bouldin Isl.) from Hwy 12 and on the south (Venice Isl.) from I-5, via 8-mile Rd. This site begins at its mouth on Little Potato Slough two miles south of Terminous to its junction with the San Joaquin River six miles westerly. It is bordered by Bouldin Island on the north and Venice Island to the south.

LAND ACCESS: LEVEE ROADS good unless wet

WATER LOGISTICS: depth problems only near shore

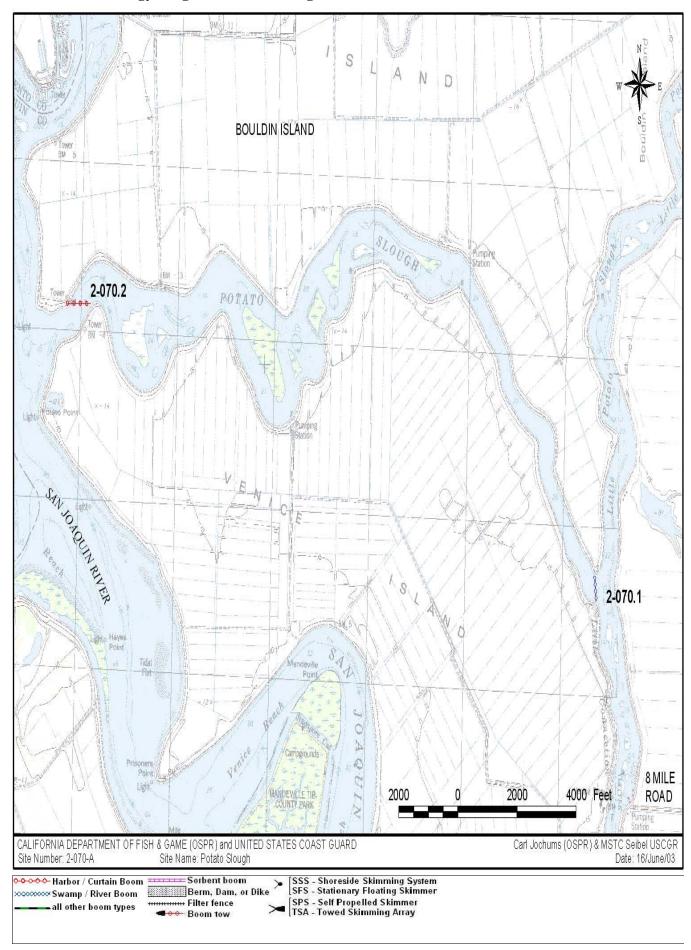
Limitations: depth, obstruction

Launching, Loading, Docking and Services Available: Marina service is available at terminus, end of 8-mile Rd, Also at tip of Andrus Island - Korth's Marina at Mokelumne half mile from west end.

# FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Deployment and support possible from nearby levees of Bouldin and Venice Isls during dry weather. Also from nearby marinas. Consider using the end of 8-mile Rd or terminus or mouth of Mokelumne as a major deployment site for this section of the Delta.

COMMUNICATIONS PROBLEMS: none known



**Thomas Guide Location** Latitude N Longitude W 38 05.6 121 29.5 County: San Joaquin SF Bay and Delt USGS Quad: **Bouldin Island** 

NOAA Chart: 18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update: 7/1/1996

#### SITE DESCRIPTION:

This site extends from its junction with Little Potato Slough two miles south of Terminous, six miles easterly to its end, and includes the side channels Telephone, Honker and Bishop Cuts. The Slough is designated a Significant Natural Area (CDFG-NHD) and also a Natural Resource Area with Significant Habitat Value in the DMRP. The Slough is laced with channels among its many berm and channel islands which remain in natural marsh/shrub -scrub condition. Levee banks are ripped but with pockets of emergent marshy/riparian growth.

#### **SEASONAL and SPECIAL RESOURCE CONCERNS**

The marsh and riparian vegetation here are of "A" concern year-round. Many Special Status Species occur here: winter-run chinook (F/CE) are a considerable concern from Oct 15- May 31; the black rail (FSC/CT) and the burrowing owl (F/CSC); four species of rare plants.

#### RESOURCES OF PRIMARY CONCERN

Extensive and ecologically rich marshy margins, islands and riparian growths. Diversified aguatic community including T/E species and migrant fish.

Site is rich in bird life typical of marshy and riparian species including: waterfowl and marsh birds. The black rail (FSC/CT) and burrowing owl (F/CSC) occur within or near this site.

Other vertebrates are typical riverine species. This may be habitat for western pond turtle (F/CSC).

Fish life are typical warm water species of the Delta. Area is a prime fishing area for black bass and striped bass. Juvenile winter-run chinook can be of great concern here.

Rare plants occurring here include California hibiscus, Suisun marsh aster, Mason's lilaeopsis, and Delta mudwort. Islands and margins are emergent marsh and shrub-scrub. Occasional riparian growth.

## **CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

# KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
В	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Dominick Gulli	Terminous Tract Reclamation District	(209) 465-5883
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

#### Site Strategy - White's Slough 2-080 -A

County and Thomas Guide Location

NOAA CHART

Latitude N Longitude W

SF Bay and Delt San Joaquin

18661 SACRAMENTO / SAN JOAQUIN RIVER

Last Page Update:

38 05.6 121 29.5

2-080 -A

#### **CONCERNS and ADVICE to RESPONDERS:**

Penetration into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands. Emergent and marsh vegetation cleaning issues.

#### **HAZARDS and RESTRICTIONS:**

Aerial traffic beware of high wires. Boats beware of shallows and snags at margins and terminal ends. Poison Oak. Slips trips and falls.

#### SITE STRATEGIES

Strategy 2-080.1 Objective: Exclude/Contain boom at the junction with Little Potato Slough on each side of Devil's Isle.

Set booms across both channels of slough mouth. Anchor one boom end near adjacent riprap levees. Anchor other end near Devil's Isle, the channel island in the mouth, leaving a trailing boom length for a tidal seal. (See impact note) Back with sorbent boom.

Strategy 2-080.2 Objective: Exclude/contain booming at Honker Cut.

At the intersection of Honker cut and White Slough anchor one end of 4X4 boom at King Island levee and the other at Empire Tract, leaving trailing boom ends for tidal seal. This strategy can be deployed nearer 8 Mile Road if circumstances are favorable.

Strategy 2-080.3 Objective: Exclude/contain booming at Bishop Cut.

At the intersection of Bishop Cut and White Slough anchor one end of 4X4 boom at Rio Blanco levee and the other at King Island, leaving trailing boom ends for tidal seal. This strategy can be deployed nearer 8 Mile Road if circumstances are favorable.

**Table of Response Resources** 

strategy	harbor	swamp	Other	sorb	-	Anchoring	Boom	Skiffs	Skin	nmers		Special	Equipment or com	ment staff	Staff
number	boom	boom	boom type	boom	no	type and gear	boat	punts	No	Type	No	and	kinds	deploy	tend
2-080.1	0	400		400	4	4/15/DANFORTH	0	1							
2-080.2	0	200			2	2/15lb/danforth	0	1						2	
2-080.3	0	200			2	2/15lbs/danforth	0	1							

#### **LOGISTICS**

# DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site by boat accessible is from Stockton Deep Water Channel at marker G11 or from end of 8-mile road, north up Little Potato Slough or down same from Terminous. Private levee roads are accessible on north from Hwy 12 via Correia Rd or on south from I-5, via 8-mile Rd to Correia Rd, Rio Blanco Rd, and King Isl. and Empire Tract levees. This site extends from its junction with Little Potato Slough two miles south of Terminous, six miles easterly to its end, and includes the side channels Telephone, Honker and Bishop Cuts.

LAND ACCESS: LEVEE ROADS good unless wet

WATER LOGISTICS:

depth problems only near shore

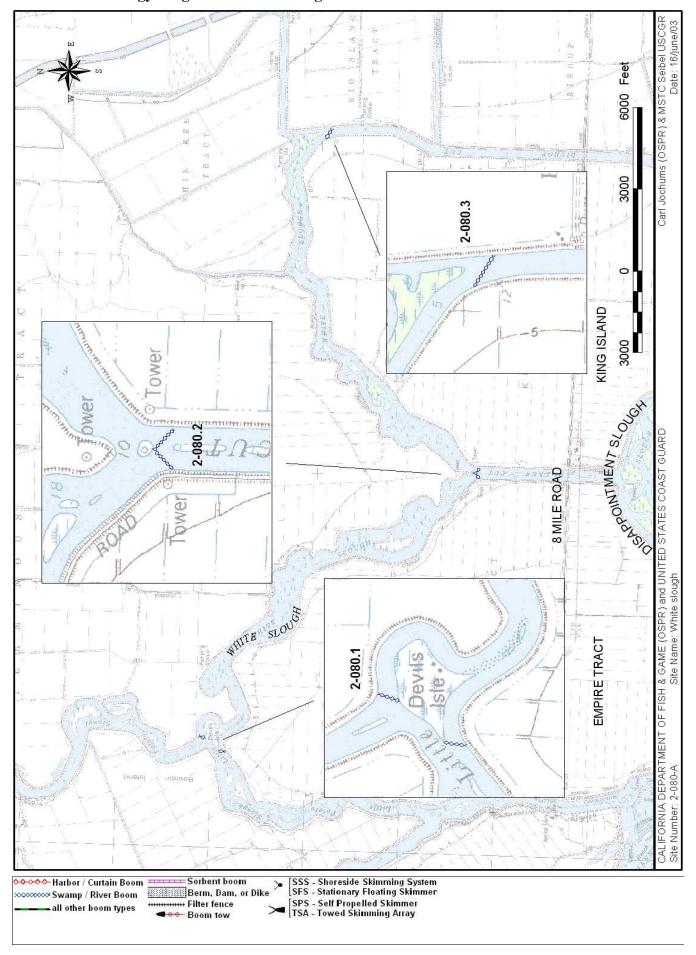
Limitations: depth, obstruction Launching, Loading, Docking and Services Available:

Marina service is available at Terminous, end of 8-mile Rd, and Disappointment Slough ends of Bishop and Empire Cuts.

# FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Deployment is possible from nearby levees. Also from nearby marinas. Consider using the end of 8-mile Rd or terminus as a major deployment site for this section of the delta.

**COMMUNICATIONS PROBLEMS:** none known



# 9850.2 Cultural and Other Resources at Risk

# 9850.21 Cultural Resources, Historic and Archeological Resources

- see Section 9802.1, Section 9840 for contact table, and individual site summaries

9850.22 Essential Fish Habitat – see Section 9802.2

**9850.23 Other Resources at Risk** - This section is reserved for specialized information regarding natural resources that occur in this particular geographic area; such as: seasonal migratory waterfowl and shorebird locations and densities; salmonid fish migration periods; or special considerations for eelgrass beds.

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# 9850.3 Economic Sites

Strictly economic resources are designated as the third priority for dedication of oil spill response resources, following human health and safety and environmental resources. The economic sites are ranked using a continuation of the environmental scale with D, E, and F categories. Economic resources that have a greater potential for long-term damages receive a higher rank or priority for emergency response.

The following criteria or definitions are used to categorize economic resources in terms of priority for response:

D = Economic activities and resources which require high water quality for their operations or existence. Resources that fall into this category would face severe, long-term economic impacts from a spill.

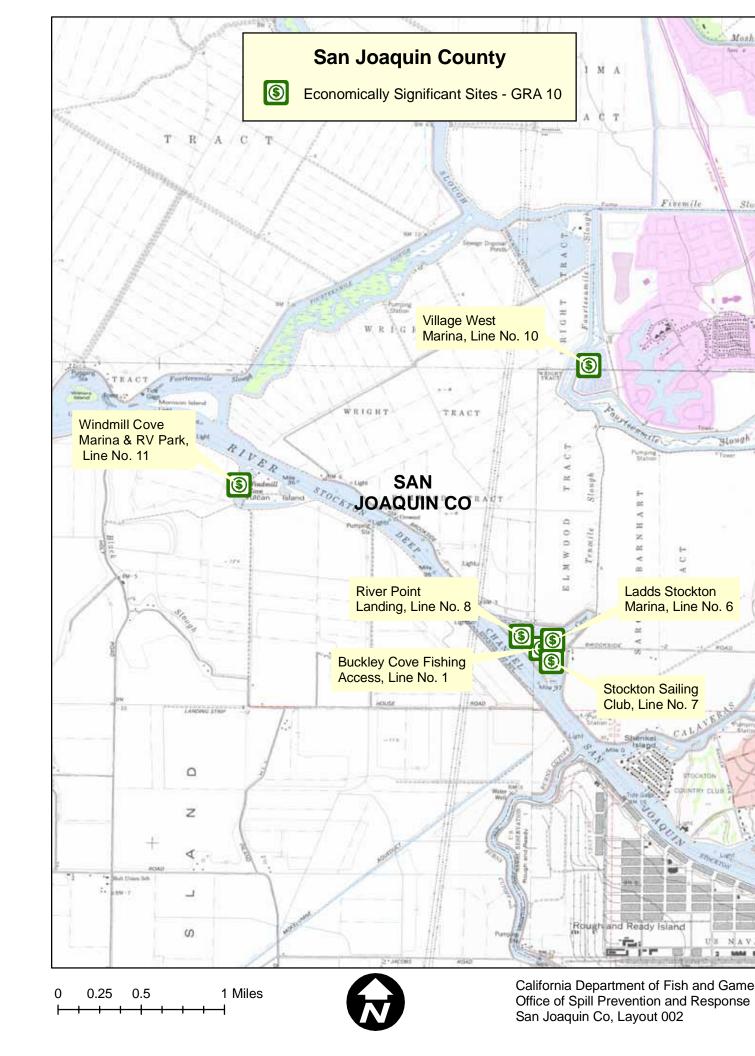
E = Facilities, businesses, or resources which directly use coastal or bay waters within their economic activity and which are at risk of oiling from a spill in marine waters. There sources falling into this category would face significant disruption of their activity, but shorter term potential damages from oiling that resources "D" category.

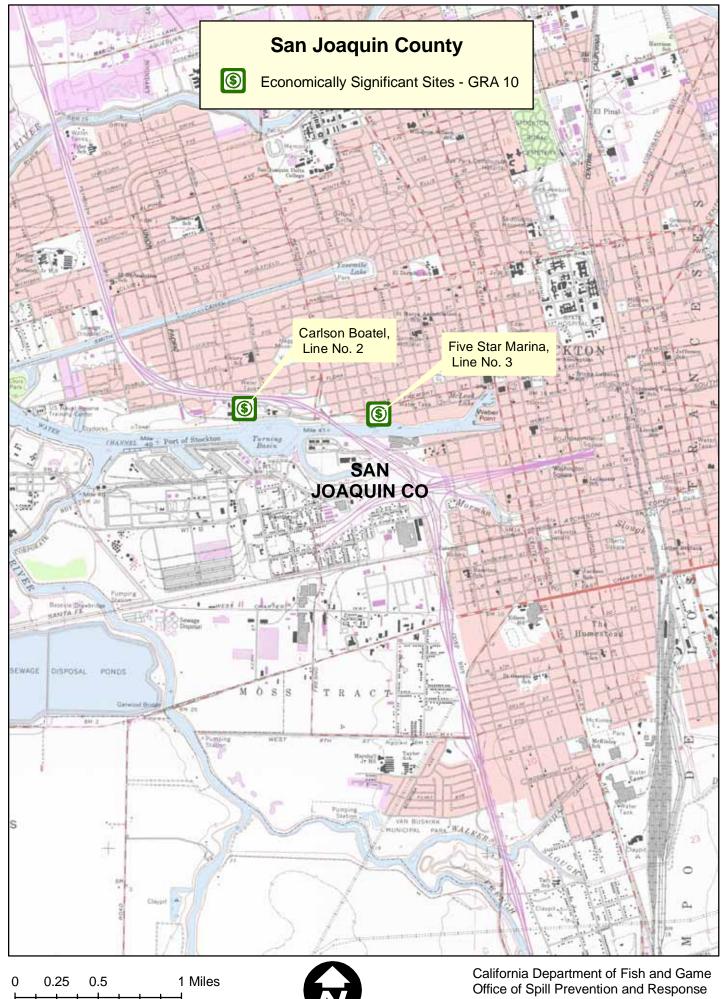
F = This category contains marine associated facilities, businesses and resources. These resources would face economic impacts from a marine spill, but do not depend directly on marine water for their economic base. Resources in this category will tend to face less severe damages than those identified in categories D or E.

In the following section, economic sites found within the GRA are listed in table format, which contain information such as latitude, longitude, economic sensitivity, etc. Following the table are diagrams denoting the location of an economically sensitive site(s). Diagrams are organized alphabetically by county, then numerically by map and site number.

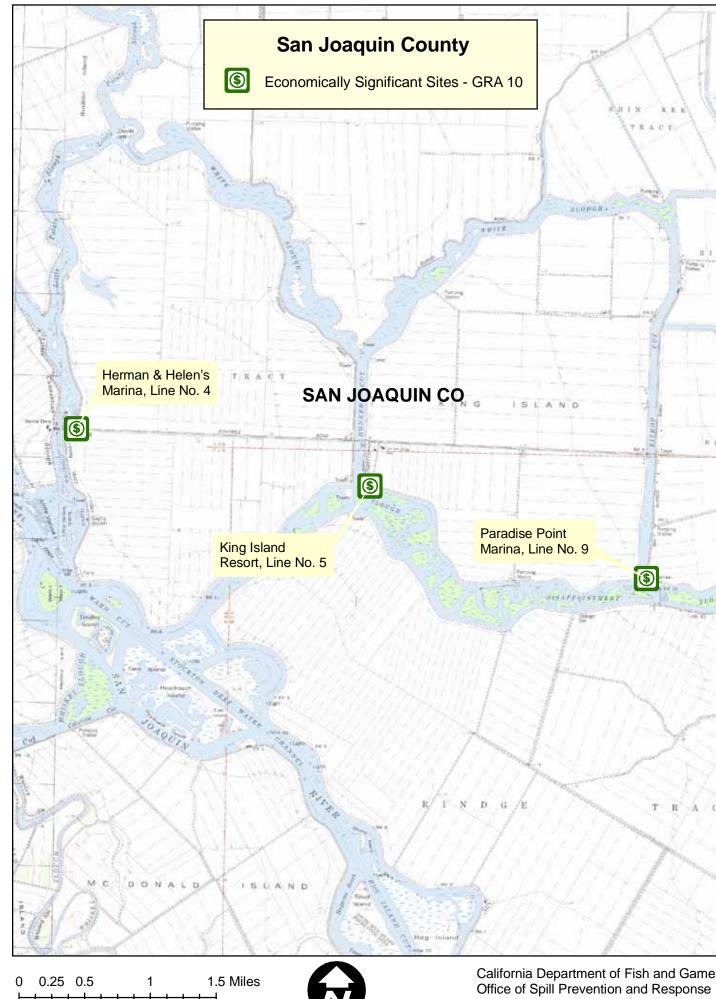
			Ecor	Economic Sites in GRA 10	n GRA 10			
Line	•					Economic	၁	
Š	No. County	Site Name	Site Description	Latitude	Longitude		Sensitivity Site Function	Site Address
-	ae S	Rurklay Cove Fishing Acces	Sarramento, San Inamiin Delta (San Inamiin River)	37 08	121 38	ц	Fishim arrass	6 East Lindsay Street do Department Parks & Recreation Shorkton 95/02
. ~	San Joaquin	Carlson Boatel	Sacramento-San Joaquin Delta (San Joaquin River)	37.95	-121.32	. 4	Boat repair and storage	1874 Field Avenue. Stockton 95203-2037
ı e	San Joaquin	Five Star Marina	Sacramento-San Joaquin Delta (San Joaquin River)	37.95	-121.31	. ш	0	345 North Yosemite Street, Stockton 95203-2740
4	San Joaquin	Herman & Helen's Marina	Sacramento-San Joaquin Delta (Little Connection Slough)	38.06	-121.50	ш	134 berths	15135 West Eight Mile Road, Stockton 95219
2	San Joaquin	King Island Resort	Sacramento-San Joaquin Delta (Disappointment Slough)	38.05	-121.46	ш	300 berths	11530 West Eight Mile Road, Stockton 95219
9	San Joaquin	Ladds Stockton Marina	Sacramento-San Joaquin Delta (Buckley Cove)	37.98	-121.37	ш	142 berths	4911 West March Lane, Stockton 95219
2	San Joaquin	Stockton Sailing Club	Sacramento-San Joaquin Delta (Buckley Cove)	37.97	-121.37	В		4980 Buckley Cove Way, Stockton 95219
œ	San Joaquin	River Point Landing	Sacramento-San Joaquin Delta (Buckley Cove)	37.98	-121.38	E/F	Recreation Site: boating, RV camping, etc.	4950 Buckley Cove Way, Stockton 95219
6	San Joaquin	Paradise Point Marina	Sacramento-San Joaquin Delta (Disappointment Slough)	38.04	-121.42	ш	323 berths	8095 Rio Blanco Road, Stockton 95219
10	San Joaquin	Village West Marina	Sacramento-San Joaquin Delta (Fourteenmile Slough)	38.00	-121.37	ш	550 berths	6649 Embarcadero Drive, Stockton 95219
7	San Joaquin	Windmill Cove Marina & RV Park	Sacramento-San Joaquin Delta (San Joaquin River)	37.99	-121.41	ш	RV Park, fuel dock, boat facilities	7600 Windmill Cove Road, Stockton 95206

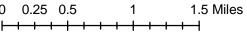
October 1, 2011













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# 9850.4 Shoreline Operational Divisions

Shoreline Operational Divisions are presented in the ACP as front-loaded information to assist in rapid response planning to provide for quickly organized operational objectives and assignments along affected shorelines. The operational divisions have been developed in conjunction with the US Coast Guard, California Fish and Game OSPR, and various Oil Spill Response Organizations. Experience has demonstrated that in the earliest stages of spill response having organizational issues such as this prepared in advance is very useful to the response team.

The shoreline operational divisions are organized and named according to County boundaries. Within county domains, divisions are boundaries are guided by logical geo-political features such as coastal physical characteristics and land ownership/management issues, shoreline cleanup logistical considerations, and manageable sized coastline segments (generally not longer than about ten miles although some variation occurs.) Logistics, access, and manageability were driving considerations in this effort, particularly as it relates to types of cleanup operations required and problems likely to be present.

In ACP areas having more than one county, Shoreline Operational Divisions will utilize county codes followed by a single alpha character (A to Z). Shoreline operational divisions are labeled from north to south in each county. For example, the north-most operational division in Los Angles County is "LA-A." In large bays (i.e. San Diego), the labeling will progress in a clockwise direction to accommodate changing coastline angles. Divisions can be easily subdivided (as necessary) by the Operations Section management to provide for appropriate work assignment effort.

Double digit alpha characters (AA to ZZ) will be used for all offshore operational areas and any other special operational areas needed during response.

GRA - 10 Shoreline Operational Divisions

